Office of Infectious Disease Services

2001 Annual Report

Office of Infectious Disease Services

Bureau of Epidemiology and Disease Control Services

Arizona Department of Health Services

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EXECUTIVE SUMMARY

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The Arizona Department of Health Services' (ADHS) Office of Infectious Disease Services (OIDS), through its programs, strives to monitor, prevent and control infectious disease conditions of public health importance in Arizona. The office is organized in five programs: (1) Infectious Disease Epidemiology, (2) Tuberculosis Control, (3) Sexually Transmitted Disease Control, (4) Hepatitis C Prevention and Surveillance, and (5) Vector-Borne and Zoonotic Disease Control. Conditions monitored by OIDS include all reportable infectious diseases other than HIV/AIDS, which are addressed by the Office of HIV/AIDS Services. All conditions are monitored through a passive surveillance system. Providers send or transmit reports of notifiable diseases to county health departments and clinical laboratories send or transmit weekly reports directly to the Department.

The disease surveillance data are used to assess disease distribution in the state and monitor trends over time rather than to identify all occurring cases. This report summarizes the incident cases reported via this surveillance system in 2001 and briefly describes notable patterns by person, place and time. Graphical depictions are presented to illustrate these trends and distributions.

The summaries of selected diseases are categorized into: Antibiotic Resistance, Coccidioidomycosis, Enteric diseases, Hepatitides, Invasive Diseases, Outbreak Investigations, Sexually Transmitted Diseases, Tuberculosis, Vaccine-Preventable Diseases, and Vector-borne and Zoonotic Diseases. The Tuberculosis Control Program collects additional information on each case and their contacts, and follows them over time. Additional details regarding specific risk factors for tuberculosis, patient's country of origin, HIV co-infection, association with correctional facilities and completion of therapy are included. Outbreak investigations include summaries of notable outbreaks within the state. Vector-borne and Zoonotic Diseases reported in 2001 are summarized in text due to their low frequency and include descriptions of individual case histories as well as any associated vector and animal surveillance activities. The final pages are tabular lists of disease rates by county and state followed by disease counts by county and for the state.

Of note in 2001:

The five most frequently reported infectious diseases in Arizona in 2001 were chlamydia (14,357), non-acute hepatitis C (6,339), gonorrhea (3,923), coccidioidomycosis (2,302), and hepatitis B (1,196).

The rates of Vancomycin Resistant Enterococci (VRE) isolates have increased progressively from 6.4 per 100,000 in 1997 (year VRE became reportable in Arizona) to 22.6/100,000 in 2000 and decreased to 16.2/100,000 in 2001.

More than 2,300 cases of coccidioidomycosis were reported; this represents the highest number of cases reported to date and an increase of more than 20% from 2000.

I. INTRODUCTION

PURPOSE OF THE REPORT

The purpose of the report is to provide surveillance information on pertinent reportable diseases in Arizona. The information is meant to assist with determining the disease burden in the state, trends in disease incidence, disease distribution, and evaluation of disease interventions.

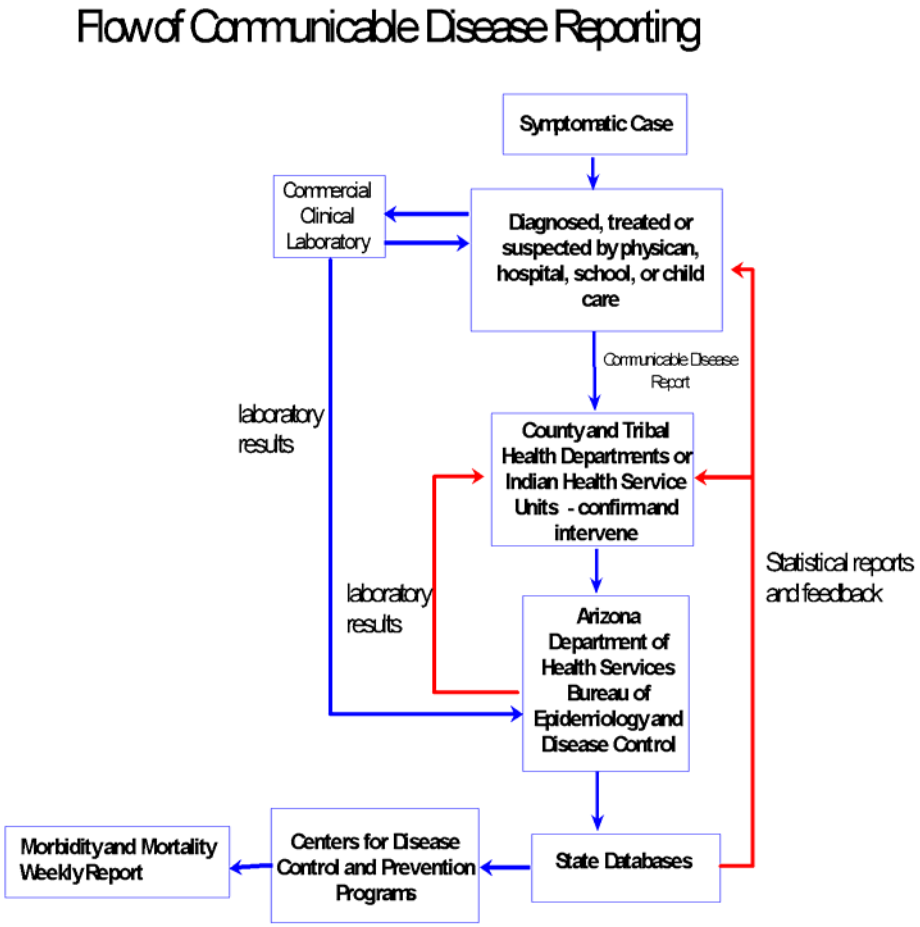
SOURCES OF DATA

Health care providers constitute the cornerstone for communicable disease surveillance. The Department of Health Services (ADHS) relies upon clinicians, hospitals and laboratories to identify selected diseases of public health importance and provide the appropriate information about the cases. The Council of State and Territorial Epidemiologists (CSTE) and the Centers for Disease Control and Prevention (CDC) jointly develop the list of Notifiable Diseases and establish "case definitions for public health surveillance" for each listed disease to ensure consistency in disease surveillance nationwide. Clinical diagnoses that do not meet the standardized surveillance case definition are not included in the report.

Arizona Administrative Code (AAC) R9-6-301 lists the diseases required to be reported by physicians, administrators of health care facilities, clinical laboratory directors and others. Reportable diseases reflect the notifiable diseases as per CSTE and diseases that are geographically relevant to Arizona (coccidioidomycosis). As outlined in Figure 1, diagnoses of reportable conditions are reported to the county health department first for immediate control and intervention measures as needed. Patients meeting the case definition are forwarded to ADHS for inclusion in statewide databases. Case information without personal identifiers is subsequently forwarded to CDC for purposes of developing the national statistics.

Readers should be aware that many factors affect the surveillance and reporting of notifiable diseases. Knowledge and awareness of current reporting rules, willingness to comply, other demands placed on reporting sources, severity of the disease, available diagnostic tests, age of the patient, confidentiality issues surrounding the disease, changes in the case definitions over time, requirements for reporting from multiple sources of some diseases, completeness of disease reports, lag times between date of onset to diagnosis to reporting a case, access to or availability of health care services, seasonality, and data sharing agreements with sovereign entities all may influence the likelihood of reporting.

Figure 1



All information supplied to state or county public health agencies is maintained in strict confidentiality in conformance to state statutes. The purpose of reportable disease surveillance is to: (1) prevent additional cases of communicable diseases through education, prophylaxis/vaccination, and the control of the source of infection; (2) describe and monitor the changing epidemiology of these diseases in Arizona; (3) provide data for planning and resource distribution; and (4) provide information to recommend and evaluate intervention and prevention strategies.

LIST OF NOTIFIABLE DISEASES

Below is the list of reportable diseases found in AAC R9-6-301. These diseases are to be reported to the local health agency (county health department or Indian Health Service Unit) within five working days of diagnosis or treatment. Diseases reportable within 24 hours of diagnosis are in **bold.** Food handlers diagnosed with a disease marked with an asterisk (*) are to be reported within 24 hours. Also, outbreaks of foodborne or waterborne disease should also be reported within 24 hours. Reports can sent in on an ADHS Communicable Disease Reporting form, which includes the patient's name, telephone number, complete street address, date of birth, race, sex, ethnicity, date of onset, date of diagnosis, diagnosis, laboratory results and date, name of reporter, and the reporter's telephone number and complete address. Alternatively, reports may be telephoned or faxed to the local health agency.

Amebiasis*
Anthrax
Aseptic Meningitis: Viral
Botulism
Brucellosis
Campylobacteriosis*
Chancroid (*Haemophilus ducreyi*)
Chlamydia
Cholera
Coccidioidomycosis (Valley Fever)
Colorado Tick Fever
Conjunctivitis: Acute
Cryptosporidiosis
Dengue
Diphtheria
Ehrlichiosis
Encephalitis: Viral
Escherichia coli O157:H7 infection*
Food/Waterborne Illness
Giardiasis*
Gonorrhea
***Haemophilus Influenzae* Invasive Disease**
Hantavirus Infection
Hepatitis A*
Hepatitis B and Delta Hepatitis
Hepatitis C
Hepatitis Non-A, Non-B
Herpes Genitalis
Human Immunodeficiency Virus (HIV) Infection and Related Disease
Human T-cell Lymphotropic Virus (HTLV-I/II) Type I and II Infection
Legionellosis (Legionnaires' Disease)
Leprosy (Hansen's Disease)
Leptospirosis
Listeriosis
Lyme Disease
Malaria
Measles (Rubeola)
Meningococcal Invasive Disease
Mumps
Pertussis (Whooping Cough)
Plague
Poliomyelitis
Psittacosis (Ornithosis)
Q Fever
Rabies in Humans
Relapsing Fever (Borreliosis)
Reye Syndrome
Rocky Mountain Spotted Fever
Rubella (German Measles)
Rubella Syndrome, Congenital
Salmonellosis*
Scabies
Shigellosis*
Streptococcal Group A Invasive Disease
Streptococcal Group B: Invasive Disease in Infants Less Than 30 Days of Age
Syphilis
Taeniasis
Tetanus
Toxic Shock Syndrome
Trichinosis
Tuberculosis
Tularemia
Typhoid Fever*
Typhus Fever: Flea-borne
Vancomycin resistant *Enterococcus* sp.
Vancomycin resistant *Staphylococcus aureus*
Vancomycin resistant *S.epidermidis*
Varicella (Chickenpox)
Vibrio infection
Yellow Fever
Yersiniosis

II. SUMMARIES FOR SELECTED DISEASES

A. ANTIBIOTIC RESISTANCE

Figure 2

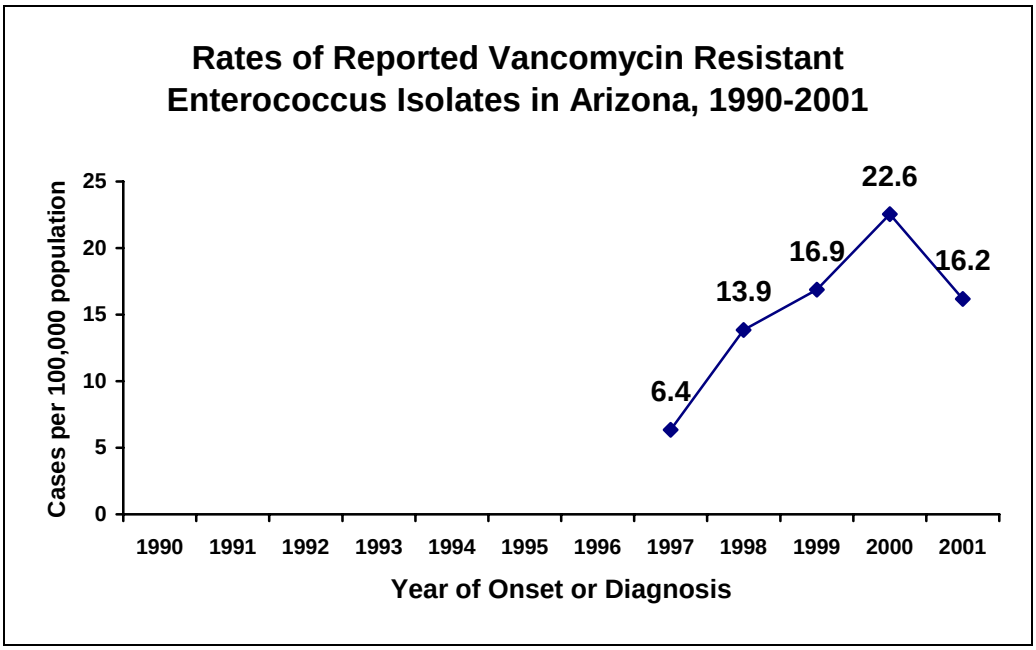


Figure 3

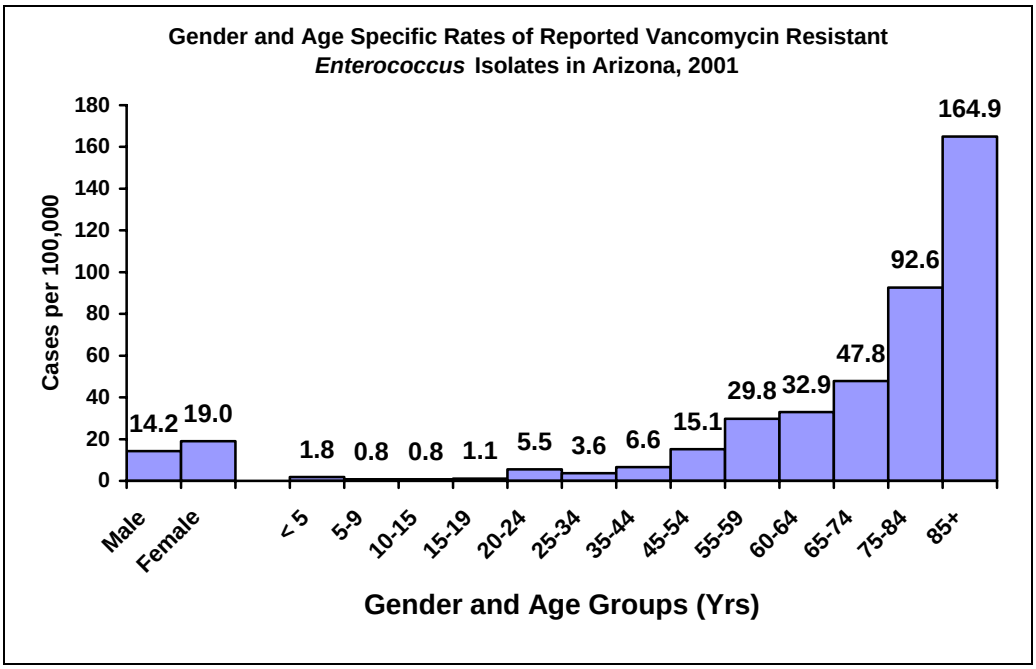
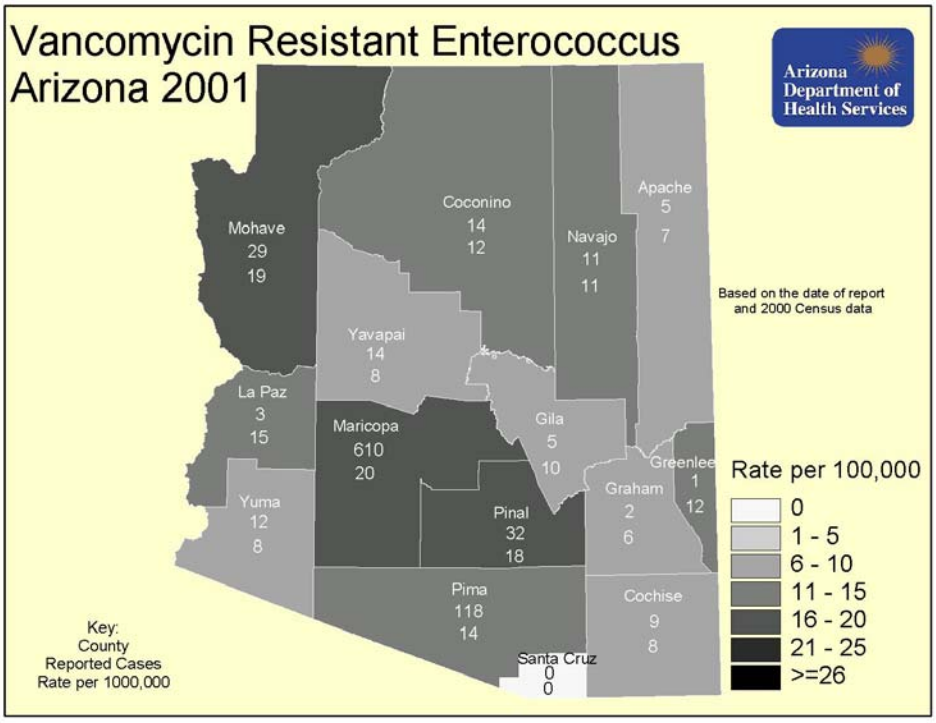


Figure 4



Vancomycin resistant Enterococcus (VRE) became reportable in Arizona in 1997. There were 867 isolates reported in 2001 reflecting 16.9 isolates/100,000 population (Fig. 2), a 25% decrease over the rate for 2000. The decrease may be associated with increased usage of alcohol-based handrubs in the hospital setting. In 2001, rates increased with age up to 164.9 isolates per 100,000 population for those 85 years and over, and females were 1.3 times more likely to be reported with VRE than males (Fig. 3). Eight of the 15 counties had rates above 10/100,000 and the remaining seven had lower rates (Fig. 4). Maricopa County, the most populated county, also had the highest rate in 2001 (20/100,000).

B. COCCIDIOIDOMYCOSIS

Figure 5

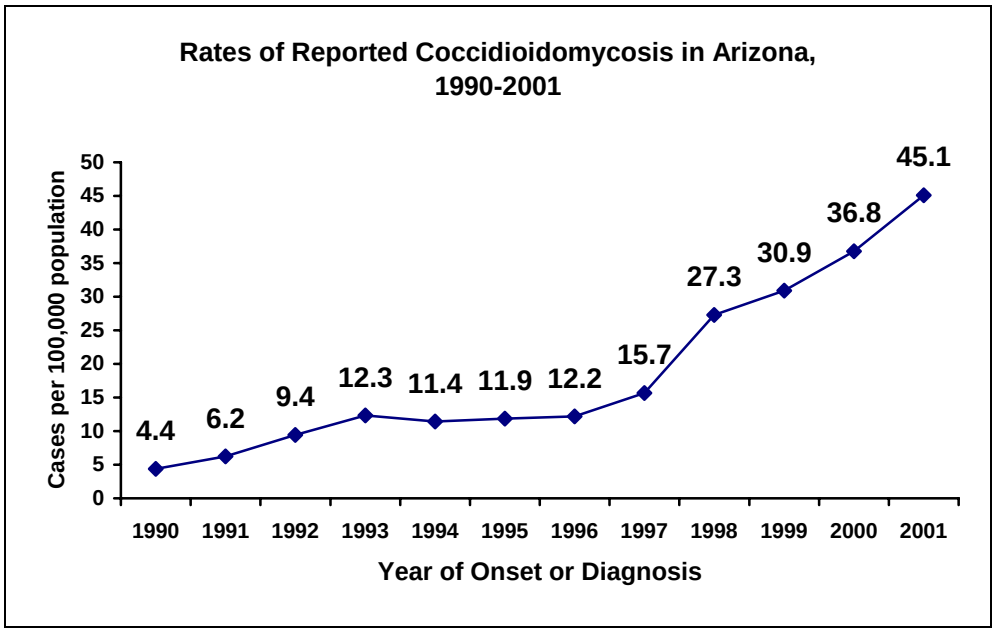


Figure 6

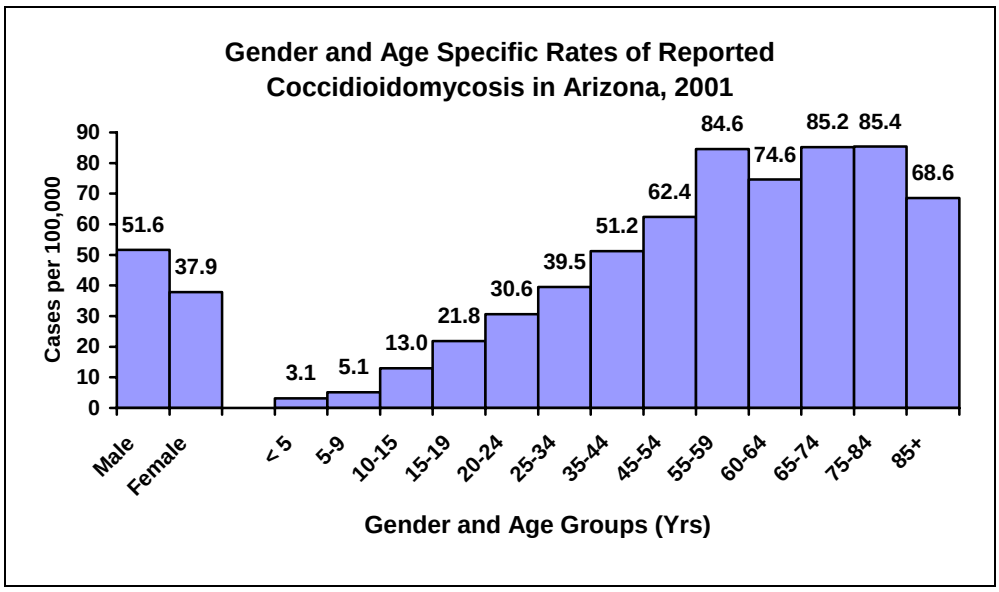
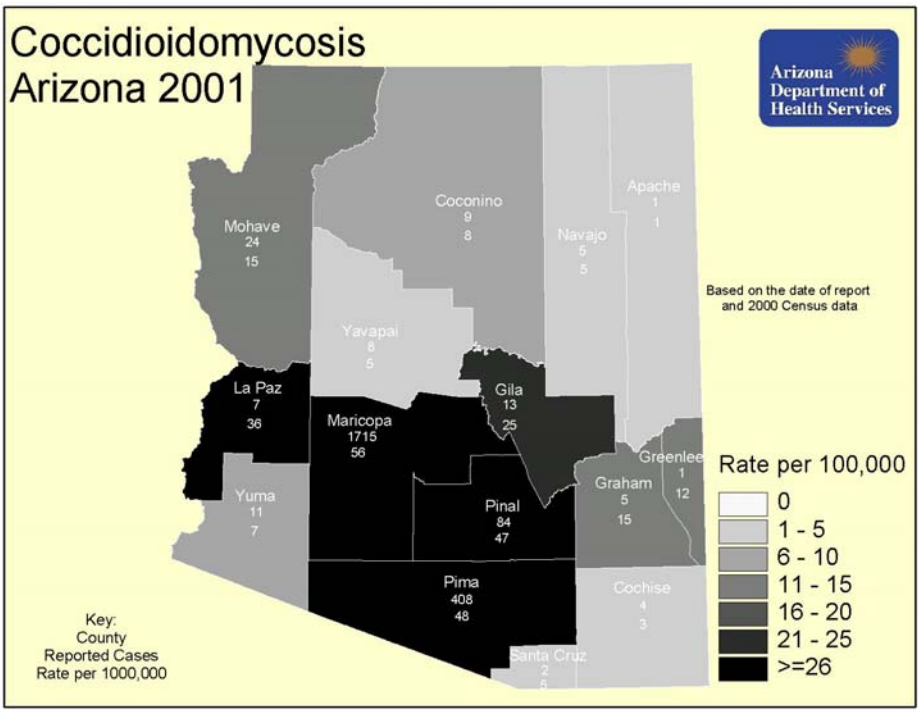


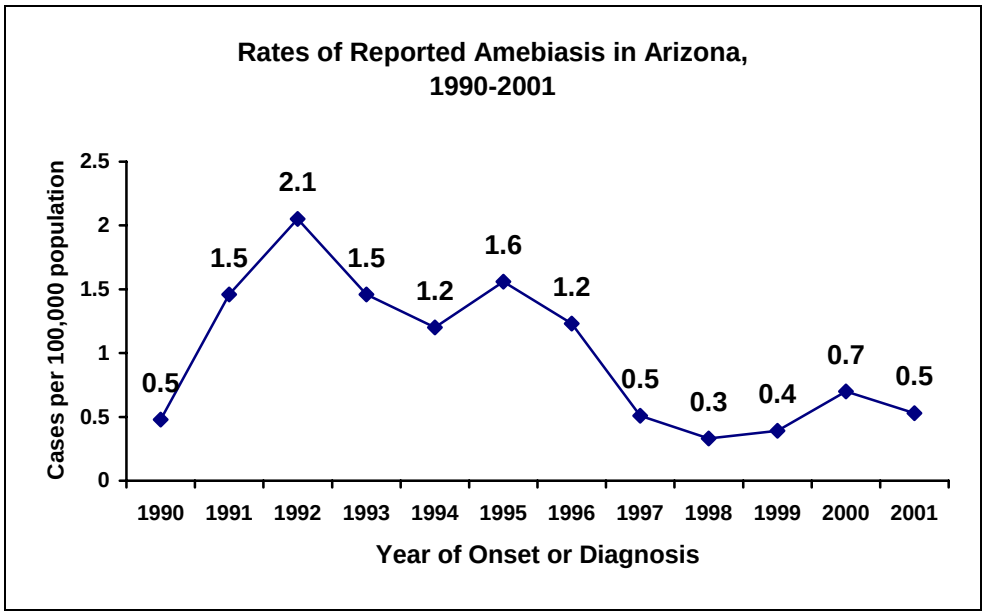
Figure 7

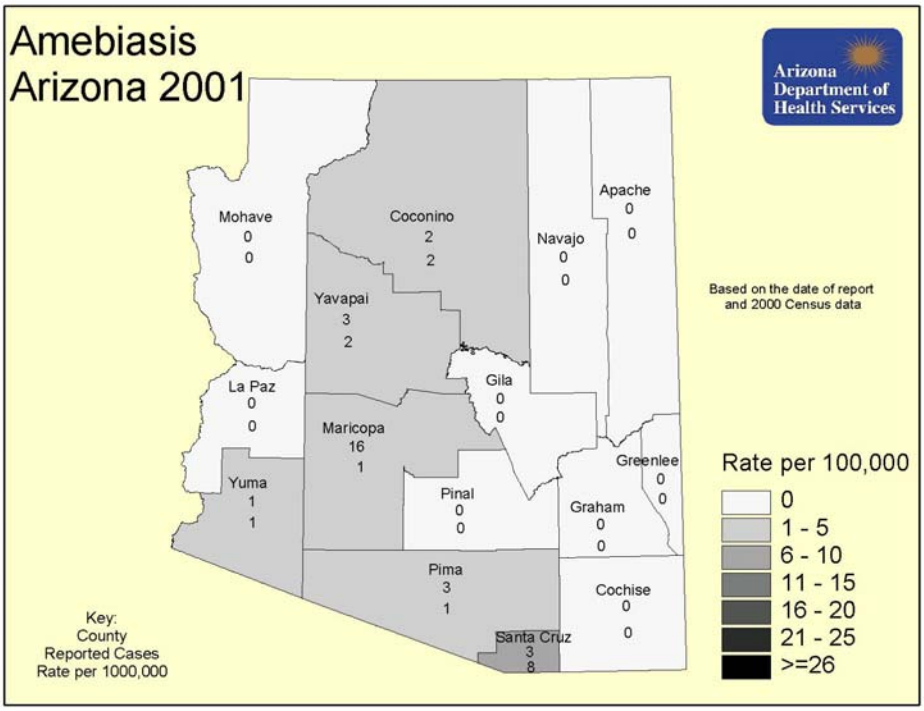


Coccidiodomycosis (valley fever) is not a nationally notifiable disease because of its limited geographic distribution; however, it is reportable in Arizona due to its regional significance – it is endemic in the Southwestern United States, and parts of Mexico and South America. In 2001, there were 2,302 reported cases of coccidioidomycosis in Arizona, reflecting approximately 45 cases per 100,000 population. This represents the highest number of cases reported to date and an increase of more than 20% from 2000 (Fig. 5). The relative increases from year to year were more noticeable since 1997. Rates of reported infection increased with age and were higher in males (Fig. 6). Persons over 65 years of age had twice (83.6 per 100,000) the rate for those between 20 and 44 (42.6 per 100,000). Ninety two percent of the cases occurred in Maricopa and Pima Counties (Fig. 7). Maricopa County also had the highest rate at 56 per 100,000. Of cases with known race (20%) in 2001, rates for all races were comparable with the exception of Native Americans; the latter were almost 50% less likely to be reported with coccidioidomycosis than Whites. Immigration of susceptible persons, the immunosuppressed population, changing climatic conditions affecting *Coccidioides immitis* growth and sporulation, development of previously undisturbed desert lands, and better reporting are possible contributors to the increase in reported cases. In 1997, clinical laboratories began reporting all positive *Coccidioides* serology results; additionally, the concomitant shortage of *Coccidioides* skin test antigens may have caused a shift towards serologic testing. Interestingly, coccidioidomycosis as the primary cause of death has remained relatively stable compared to the disease incidence rate.

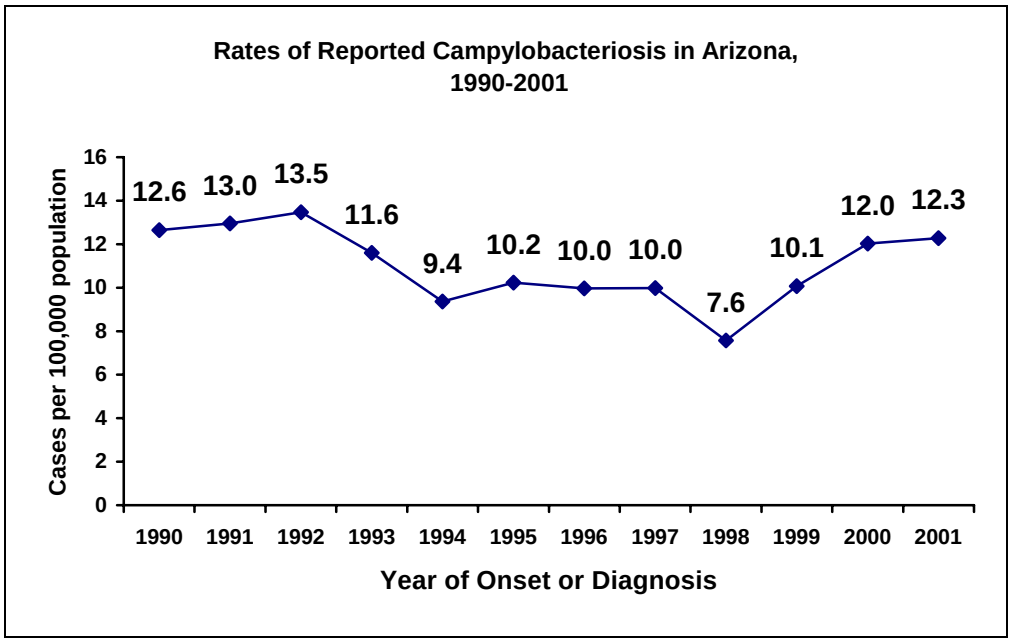
C. ENTERIC DISEASES

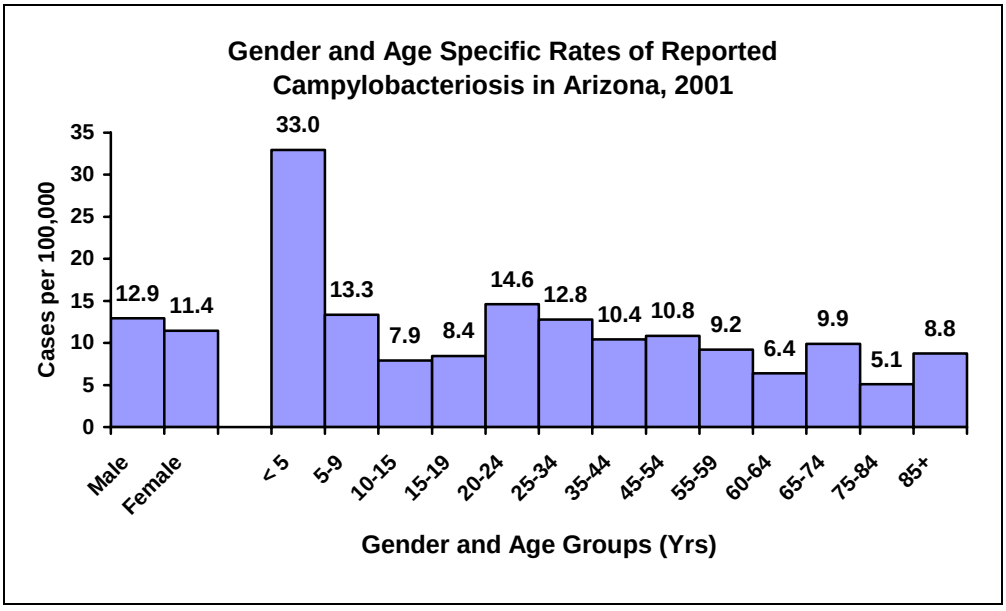
Figure 8

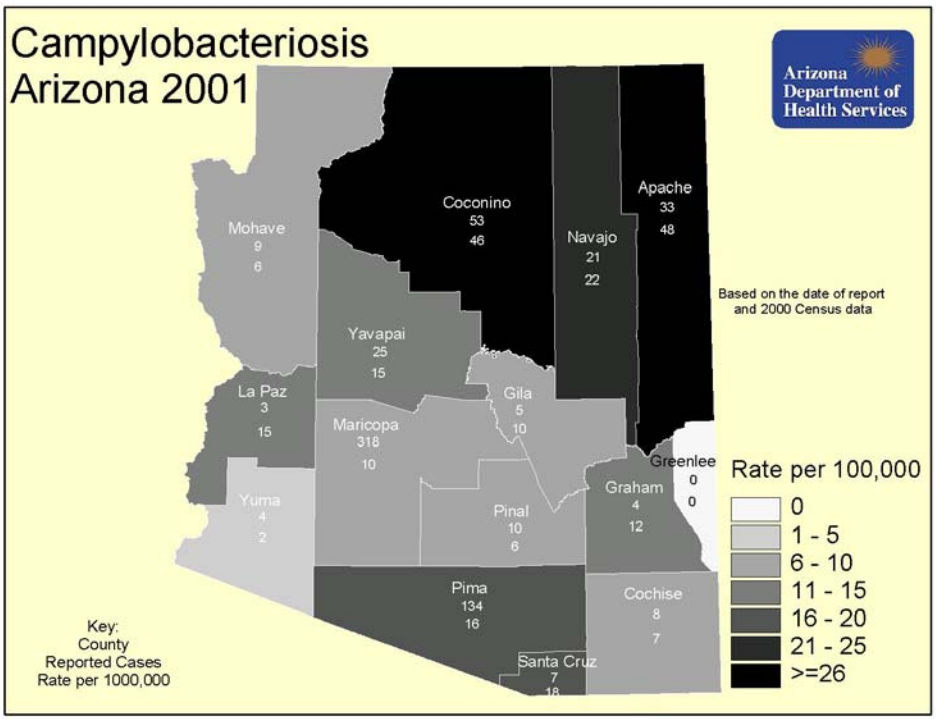




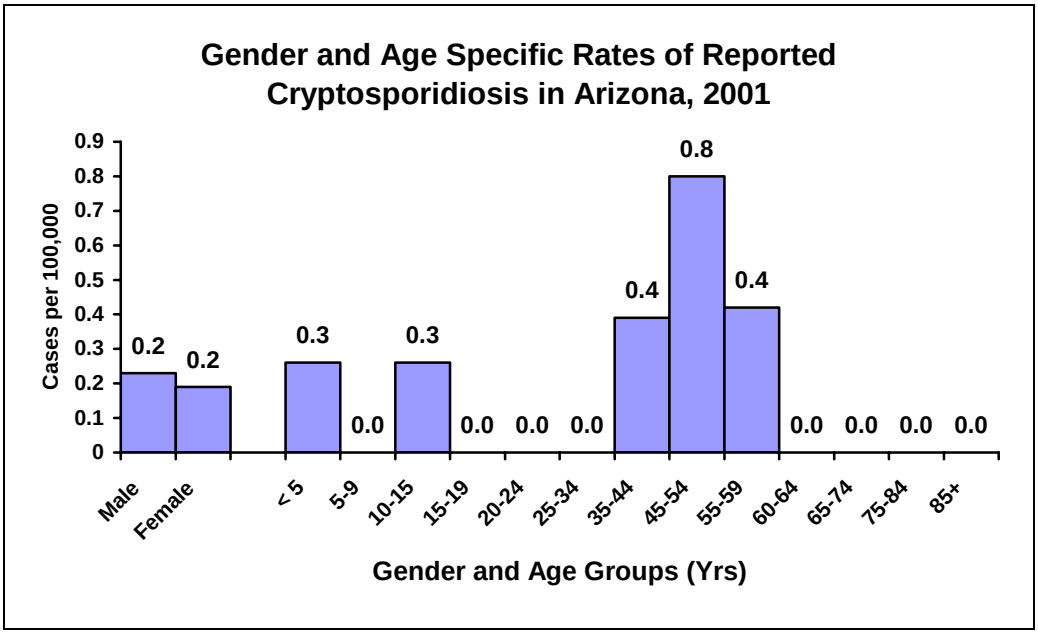
There were 29 cases of amebiasis reported in 2001 equaling approximately 0.57 cases per 100,000 population. The amebiasis case rates peaked in 1992 at 2.05 per 100,000 population and decreased thereafter. Rates have been below one case per 100,000 population since 1997. Part of the decrease could be due to the closing of a clinical laboratory specializing in parasitic microscopy, which lost its license due to a significant number of false positives. Of the counties, Santa Cruz consistently had the highest rates reported. Rates ranged from 0 in 1990, 23.2 in 1995 and 7.82 in 2001. Wide fluctuations in case rates are partially due to the low incidence. National rates have decreased from 1.38 in 1990 to 1.2 in 1994. Amebiasis has been removed from the list of nationally notifiable diseases.


Rates of Reported Campylobacteriosis in Arizona, 1990-2001
Cases per 100,000 population
0
2
4
6
8
10
12
14
16
12.6
13.0
13.5
11.6
9.4
10.2
10.0
10.0
7.6
10.1
12.0
12.3
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
Year of Onset or Diagnosis

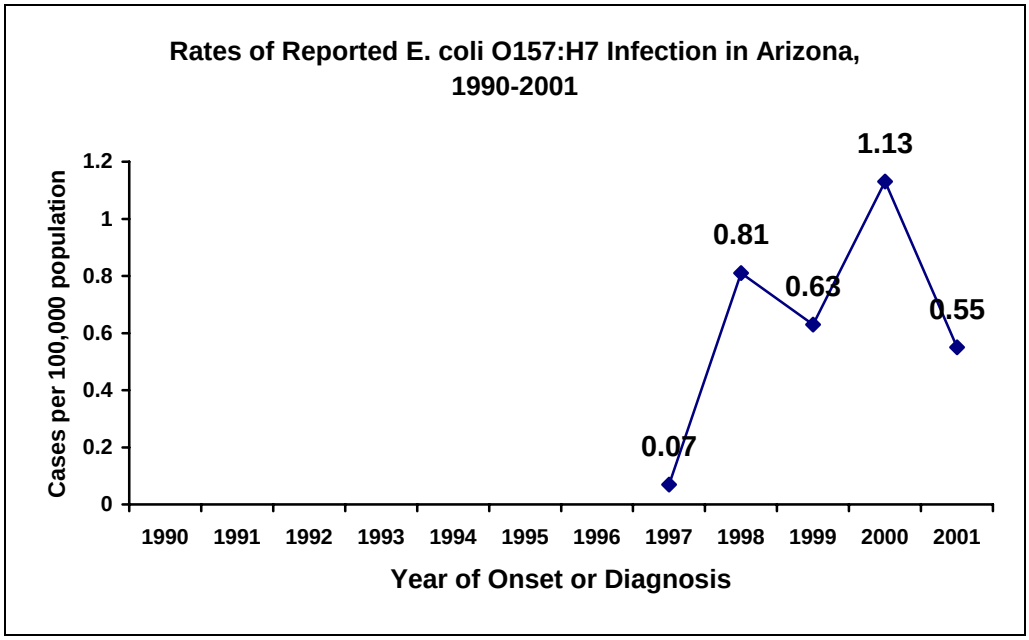

Gender and Age Specific Rates of Reported Campylobacteriosis in Arizona, 2001
Cases per 100,000
0
5
10
15
20
25
30
35
12.9
11.4
33.0
13.3
7.9
8.4
14.6
12.8
10.4
10.8
9.2
6.4
9.9
5.1
8.8
Male
Female
<5
5-9
10-15
15-19
20-24
25-34
35-44
45-54
55-59
60-64
65-74
75-84
85+
Gender and Age Groups (Yrs)

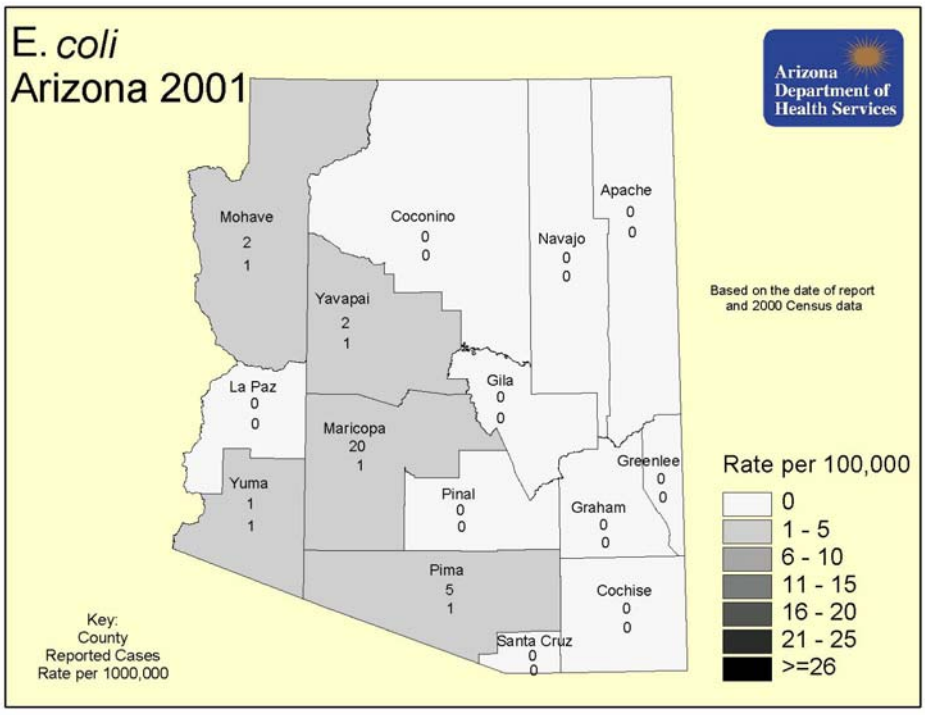


There were 635 cases of Campylobacteriosis reported in 2001, equaling approximately 12 cases per 100,000 population. Apache, Coconino and Navajo counties had the highest rates in 2001, 3.9, 3.6 and 1.7 times the state rate, respectively. Twenty percent of reported cases were children under five years of age. Campylobacter was not known to be a common cause of diarrheal disease in humans until 1977, when a practical method for isolating the organism from stool was described. Campylobacteriosis is not a nationally notifiable disease. Even though surveillance is very limited, over 10,000 cases are reported to the Centers for Disease Control and Prevention (CDC) each year, equaling approximately six cases for each 100,000 persons in the population.

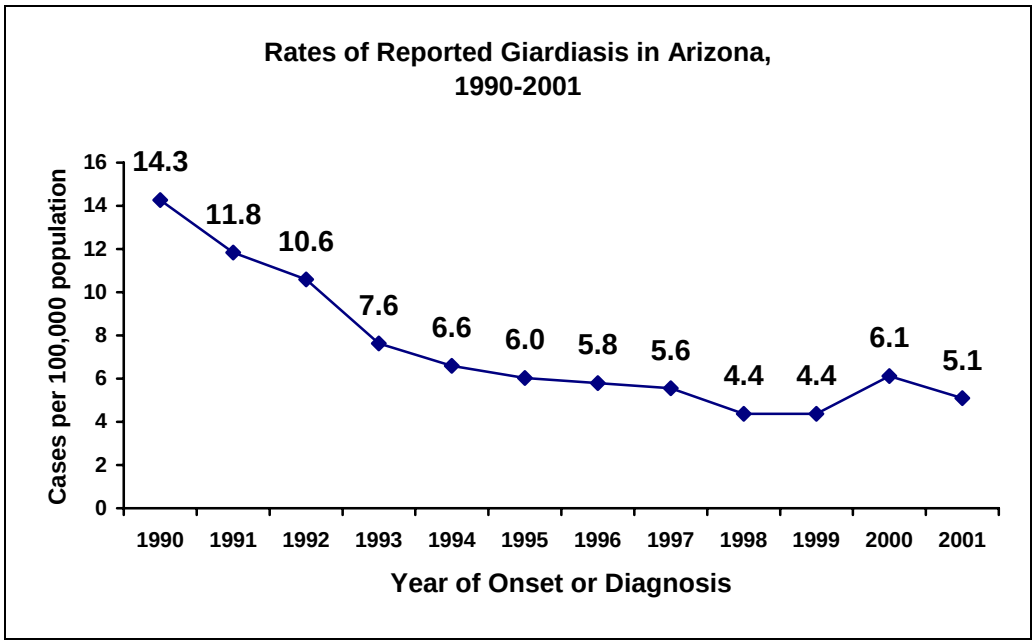


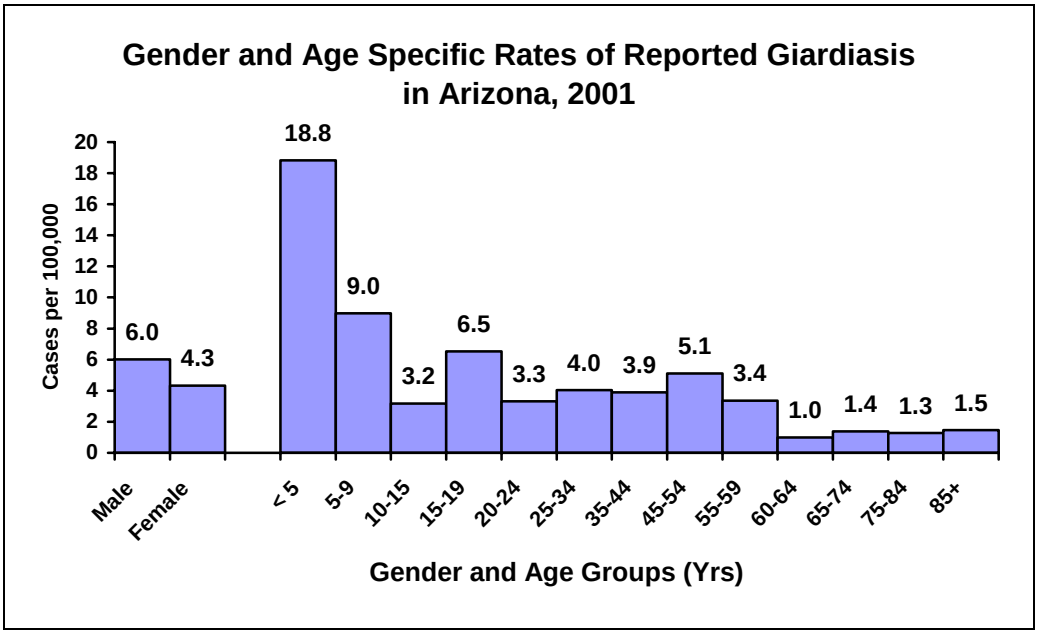
Eleven cases of Cryptosporidiosis were reported in Arizona in 2001. This yielded a rate of 0.21 cases per 100,000 individuals. Graham County reported the highest rate, with 2.99 cases per 100,000 population. Rates between males and females were comparable while individuals between 45-54 were reported to have the highest rate of infection, almost 3.8 times greater than all ages combined.





There were 30 reported cases of *E. coli O157:H7* infection in Arizona in 2001, representing a 46 percent decrease from 2000. Of the 53 percent of cases for which race is known, 47 percent of cases were Caucasian. *E. coli O157:H7* became reportable in Arizona in April 1997 thus trend data is still limited. National rates have increased steadily from .82 per 100,000 in 1994 to 1.77 in 1999.


Rates of Reported Giardiasis in Arizona, 1990-2001
Cases per 100,000 population
0
2
4
6
8
10
12
14
16
14.3
11.8
10.6
7.6
6.6
6.0
5.8
5.6
4.4
4.4
6.1
5.1
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
Year of Onset or Diagnosis


Gender and Age Specific Rates of Reported Giardiasis in Arizona, 2001
Cases per 100,000
0
2
4
6
8
10
12
14
16
18
20
6.0
4.3
18.8
9.0
3.2
6.5
3.3
4.0
3.9
5.1
3.4
1.0
1.4
1.3
1.5
Male
Female
< 5
5-9
10-15
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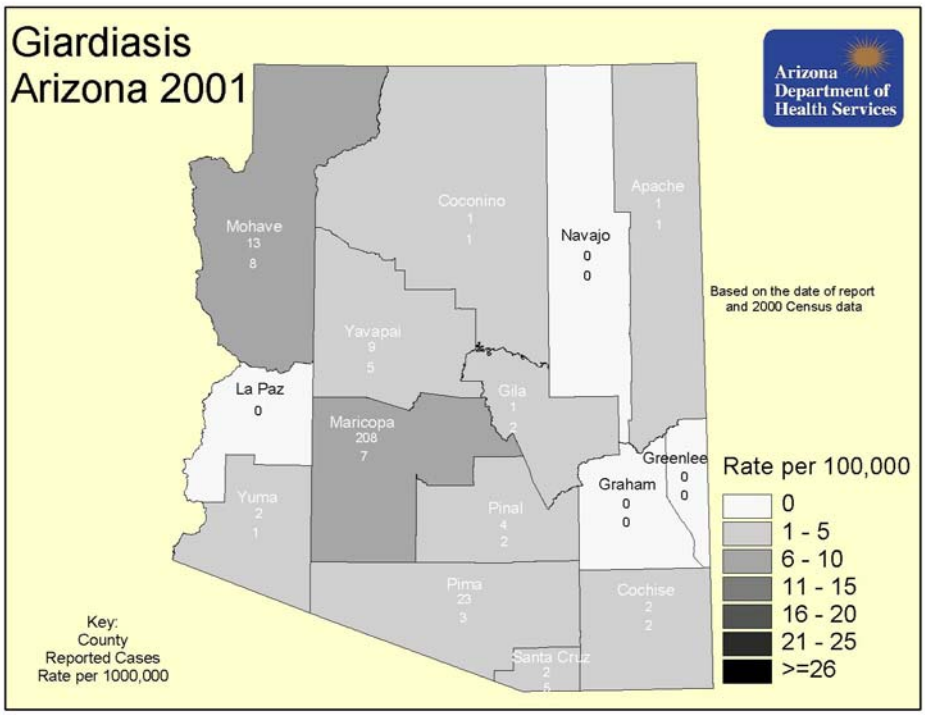
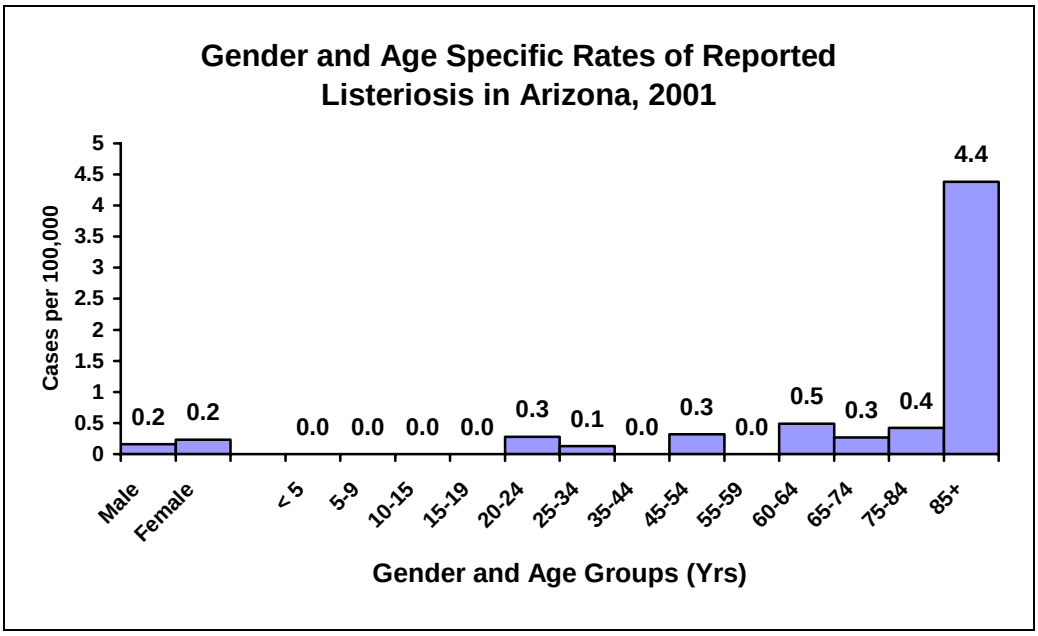
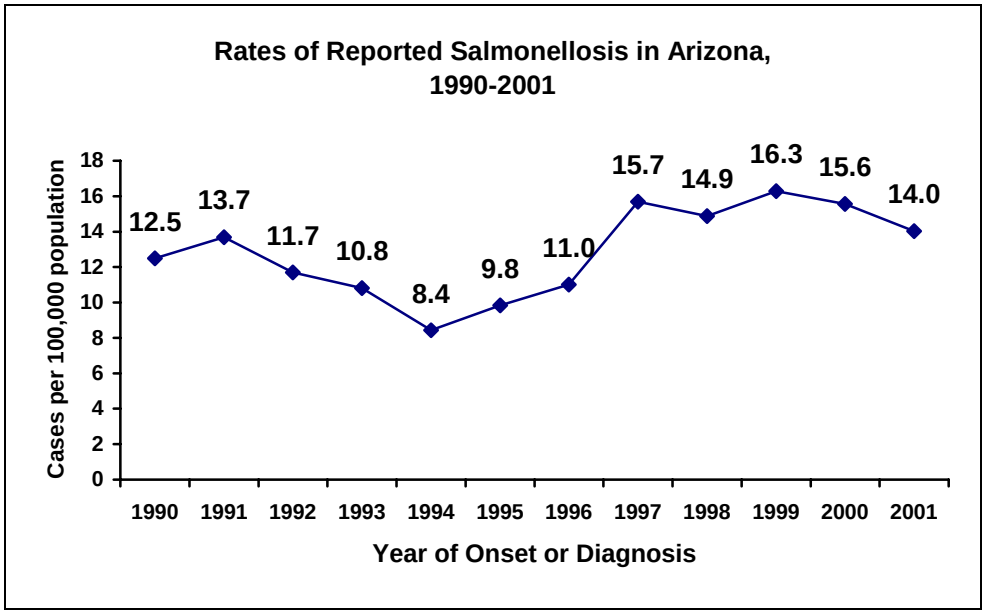
65-74
75-84
85+
Gender and Age Groups (Yrs)



There were 267 cases of Giardiasis reported in 2001. The overall rate was 5.2 per 100,000 population with Mohave County having1.6 times the state rate. Giardiasis tends to be more prevalent in children. Those under five years of age were 3.6 times and those five to nine were 1.7 times more likely to be reported with Giardiasis than all ages combined. Rates have steadily declined over the first half of the decade and stabilized thereafter.



There were 10 cases of Listeriosis reported in 2001, which equates to a 50 percent decrease in cases from 2000 figures. 60 percent of reported cases were female and 70 percent of cases, for which race was reported, were white. Cases of *Listeria* peaked in April with 40 percent of cases occurring during this month.


Rates of Reported Salmonellosis in Arizona, 1990-2001
Cases per 100,000 population
0
2
4
6
8
10
12
14
16
18
12.5
13.7
11.7
10.8
8.4
9.8
11.0
15.7
14.9
16.3
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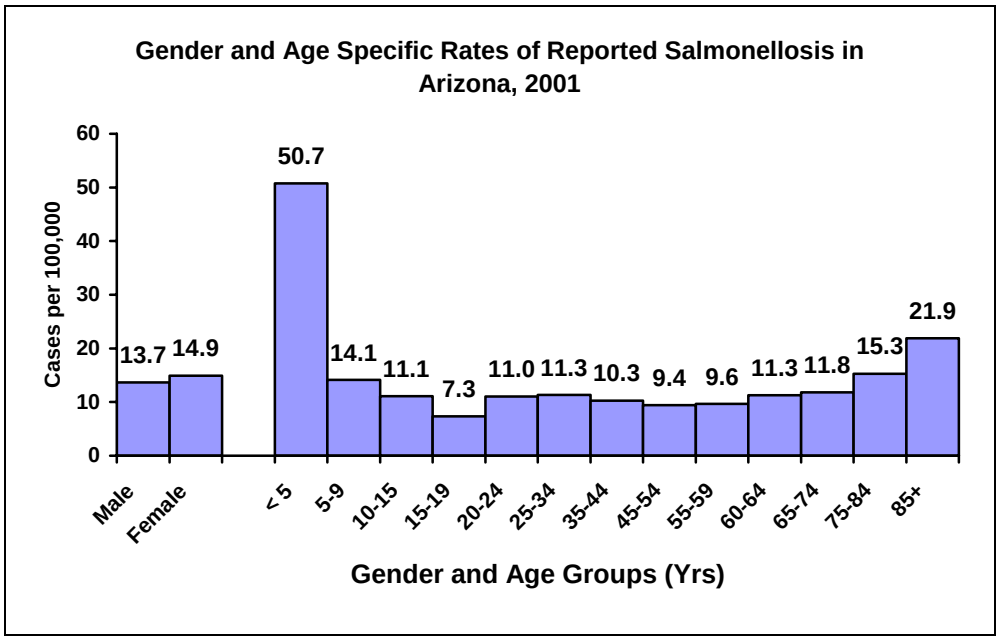
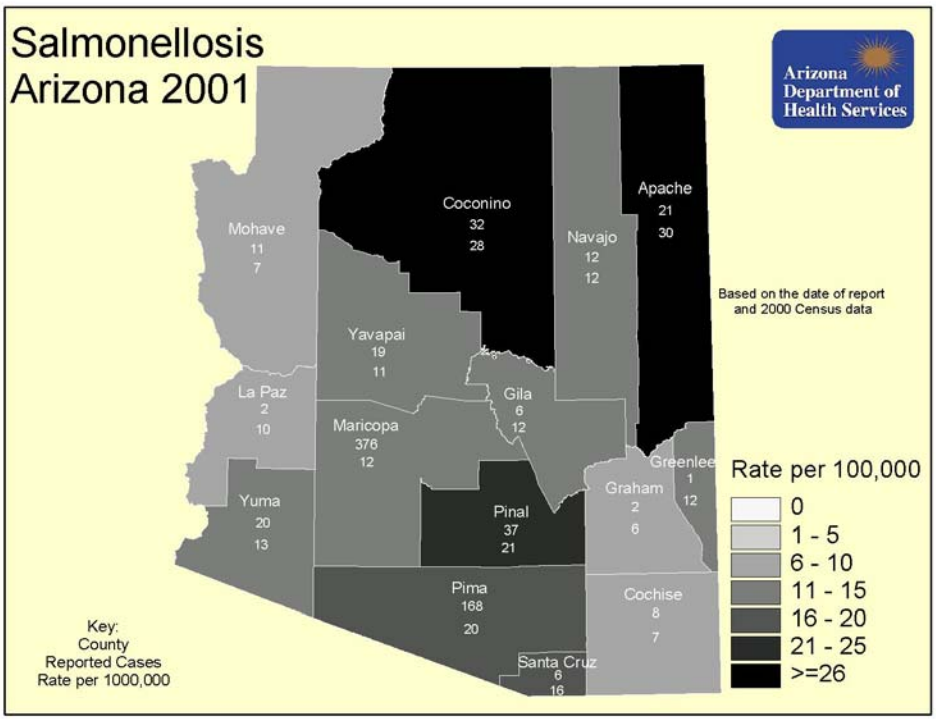
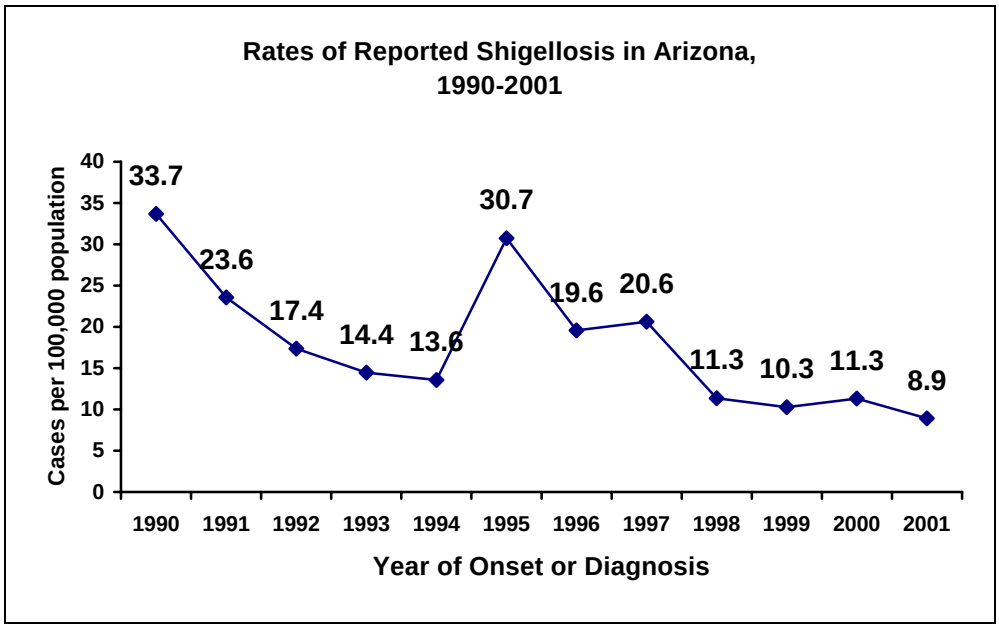
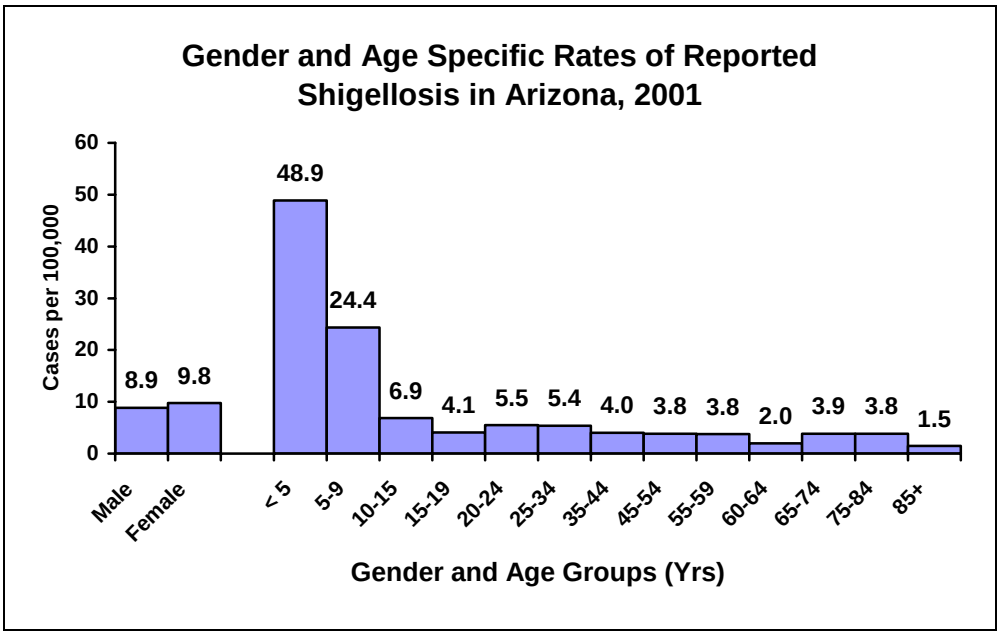
1993
1994
1995
1996
1997
1998
1999
2000
2001
Year of Onset or Diagnosis

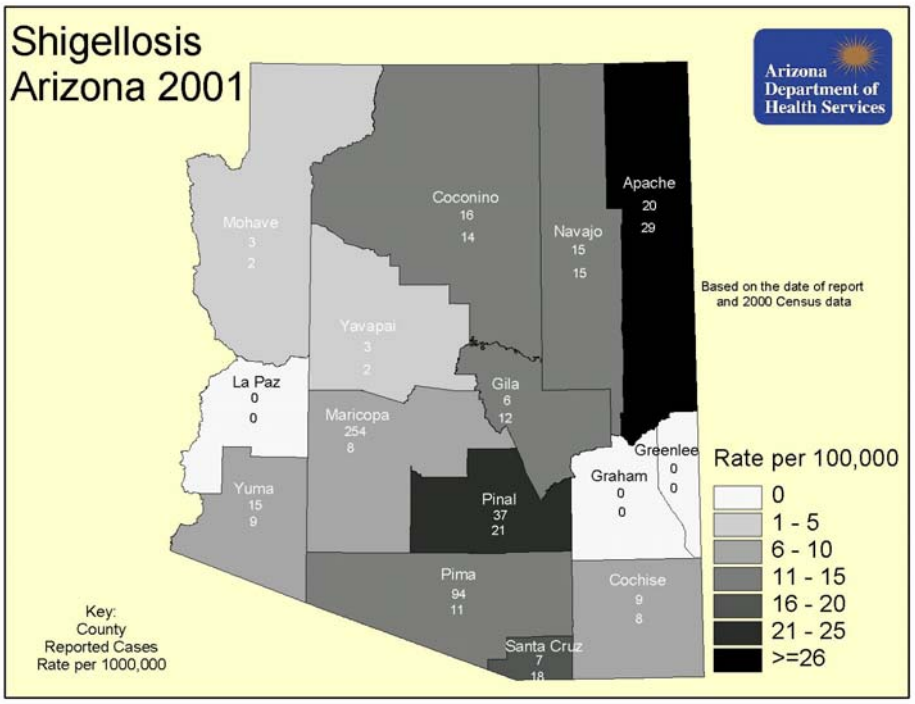

Gender and Age Specific Rates of Reported Salmonellosis in Arizona, 2001
Cases per 100,000
0
10
20
30
40
50
60
13.7
14.9
50.7
14.1
11.1
7.3
11.0
11.3
10.3
9.4
9.6
11.3
11.8
15.3
21.9
Male
Female
< 5
5-9
10-15
15-19
20-24
25-34
35-44
45-54
55-59
60-64
65-74
75-84
85+
Gender and Age Groups (Yrs)



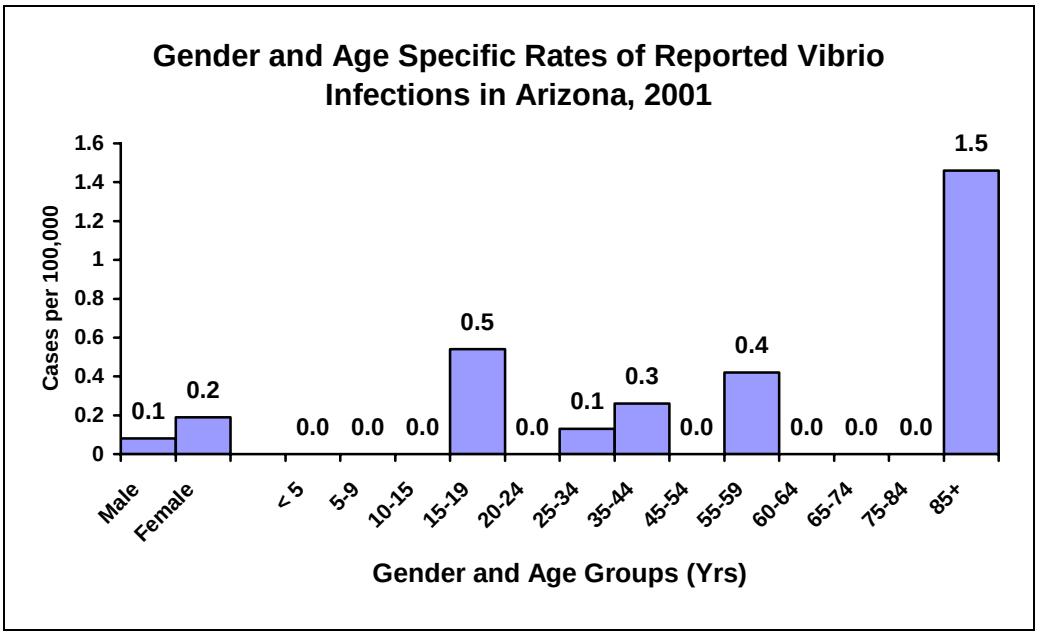
There were 738 cases of Salmonellosis reported in 2000, reflecting a case rate of 14.38 per 100,000 population. Salmonellosis is most common in children under five years of age and 26 percent of reported cases were under five years of age, equating to approximately 50 cases per 100,000. Cases of *Salmonella* peak in the late summer with 35 percent of cases reported between July and September. Apache, Coconino, and Pinal counties reported the highest rates in 2001, 2.1, 1.9, and 1.4 times the state rate. There were three reported outbreaks of *Salmonella* in 2001, which were associated with alfalfa sprouts, cantaloupe, and potentially green grapes. Although rates appeared to be declining through 1994, resulting in lower state rates versus national rates, the trend now appears to have reverted and Arizona rates are now comparable with national levels.


Rates of Reported Shigellosis in Arizona, 1990-2001
Cases per 100,000 population
0
5
10
15
20
25
30
35
40
33.7
23.6
17.4
14.4
13.6
30.7
19.6
20.6
11.3
10.3
11.3
8.9
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
Year of Onset or Diagnosis

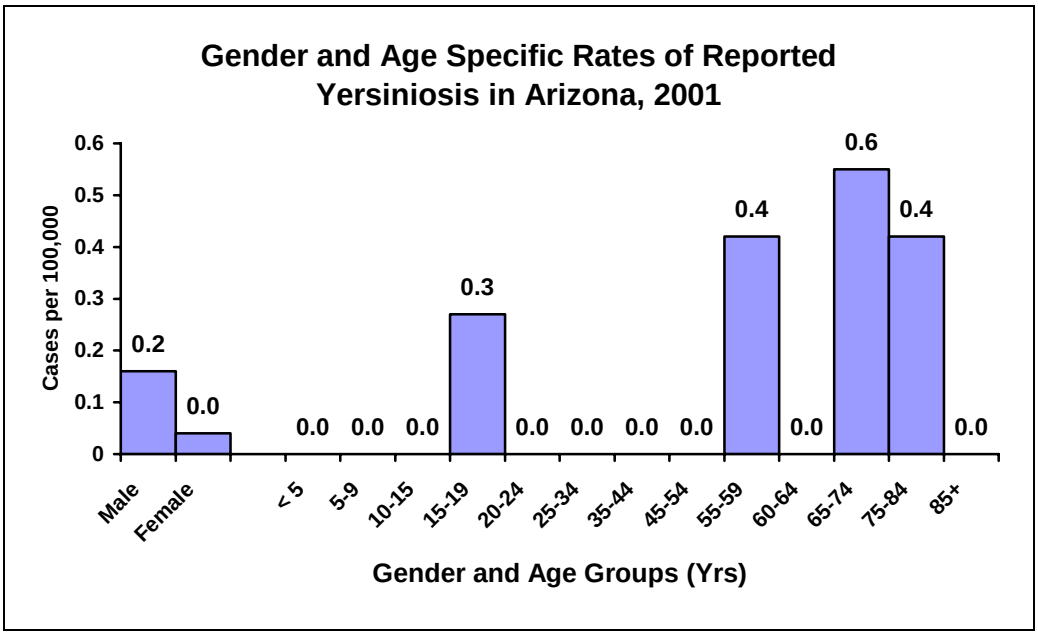

Gender and Age Specific Rates of Reported Shigellosis in Arizona, 2001
Cases per 100,000
0
10
20
30
40
50
60
8.9
9.8
48.9
24.4
6.9
4.1
5.5
5.4
4.0
3.8
3.8
2.0
3.9
3.8
1.5
Male
Female
< 5
5-9
10-15
15-19
20-24
25-34
35-44
45-54
55-59
60-64
65-74
75-84
85+
Gender and Age Groups (Yrs)



There were 483 cases of Shigellosis reported, representing a rate of 9.4 cases per 100,000, reported in 2001. This represents an approximate sixteen percent decrease in cases from 2000 maintaining a general trend of decreasing enteric disease rates. On the average, there were twice as many cases during the months from August through November. Of the cases with known race (60 percent), Native Americans and Hispanics were approximately 4 times more likely to be reported with Shigellosis than Whites. Apache and Pinal counties reported the highest rates, 28.81 and 20.59 cases per 100,000 population, respectively. State rates have been consistently higher than the national rates, which have fluctuated from 10.89 in 1990 to 6.43 in 1999.



In 2001, 7 cases of *Vibrio* infection were reported compared with 3 cases from 2000. Females were three times more likely to be reported with *Vibrio* infection than males. *Vibrio* infections in Arizona are most often associated with consumption of undercooked seafood. *Vibrio parahaemolyticus* was the most common species reported with 57 percent of cases belonging to this species.



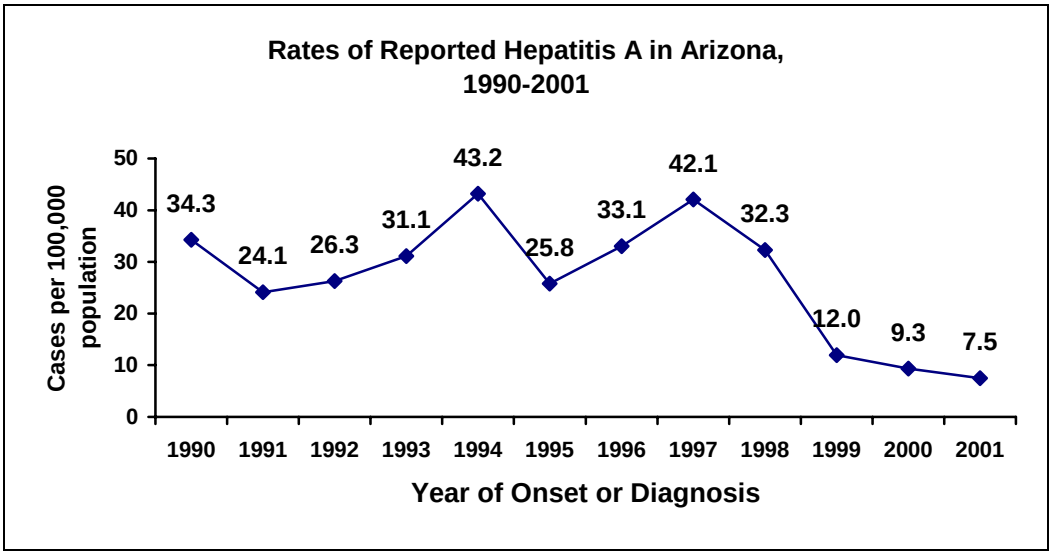
There were 5 cases of Yersiniosis reported in Arizona during 2001. Males comprised the largest portion of cases with 80 percent of cases classified as male. In addition, 80 percent of cases were age 55 or older.

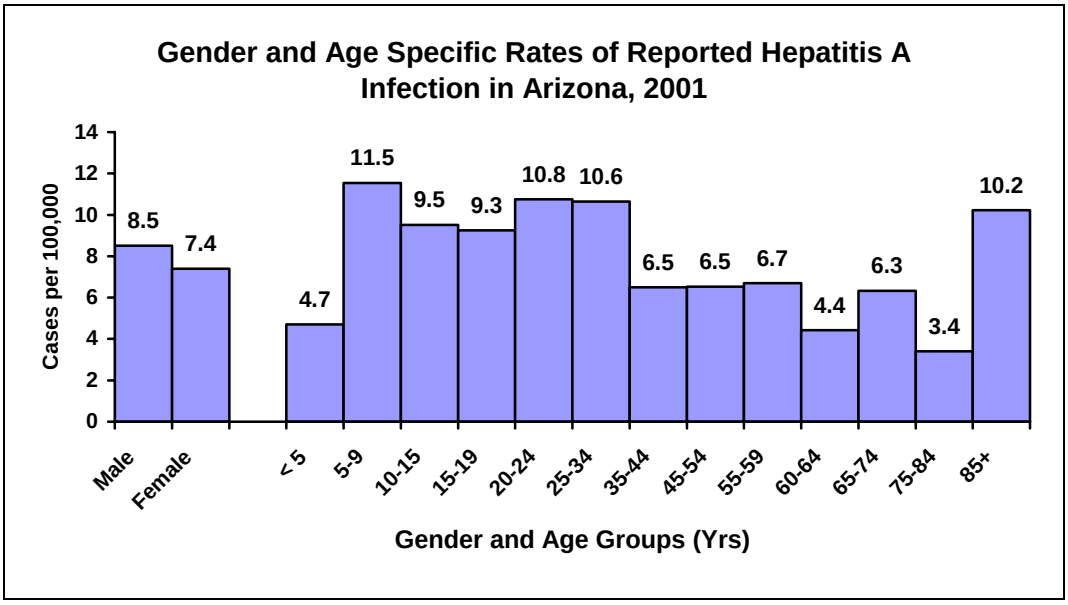
Other Enteric Diseases of Significance

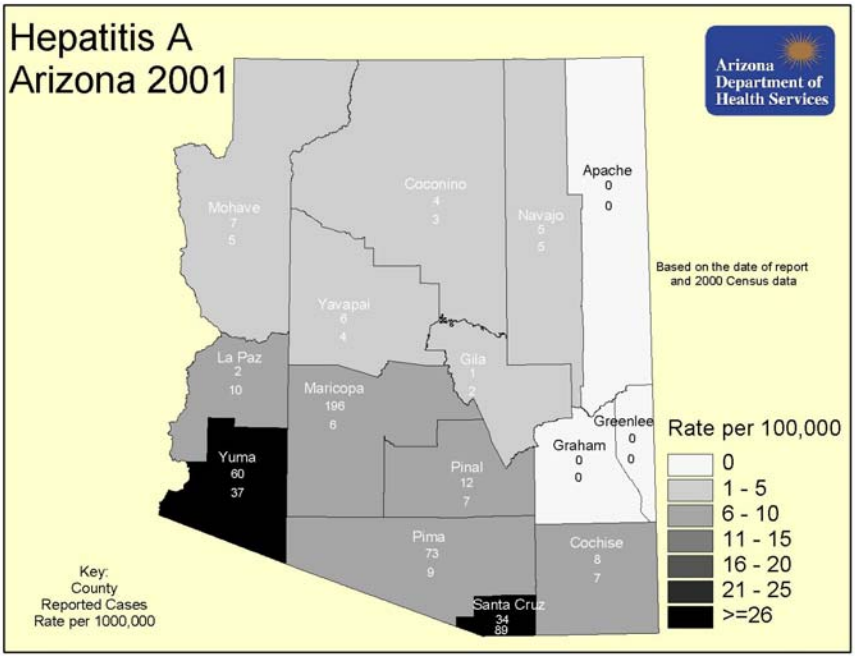
There were two reported cases of infant botulism, toxin type A, in Maricopa and Mohave County in 2001. Last year, there was one reported case of infant botulism in Maricopa County. There was one case of foodborne botulism, which occurred in an adult female Maricopa county resident after consumption of a home pickled meat product. No cases of foodborne botulism were reported in 2000.

Two cases of typhoid fever were reported in 2001, one Maricopa and one Pima county resident. Only one case could be interviewed and reported a travel history to Mexico. The majority of cases reported in Arizona are acquired during travel to foreign countries. In 2000, there were four cases of Typhoid Fever reported.

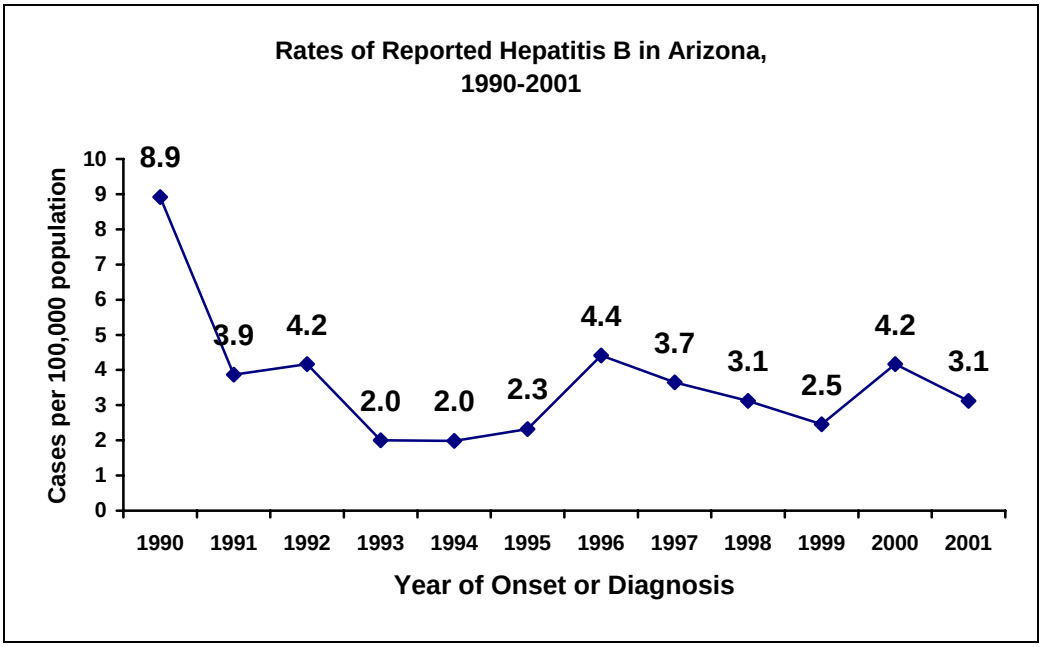
D. HEPATITIDES

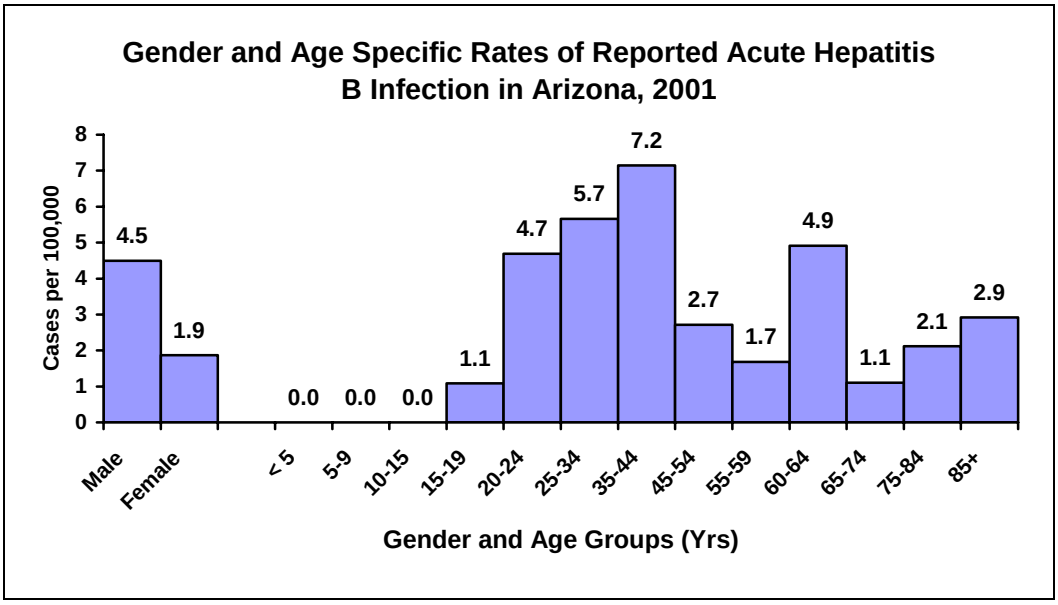

Rates of Reported Hepatitis A in Arizona, 1990-2001
Cases per 100,000 population
0
10
20
30
40
50
34.3
24.1
26.3
31.1
43.2
25.8
33.1
42.1
32.3
12.0
9.3
7.5
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
Year of Onset or Diagnosis

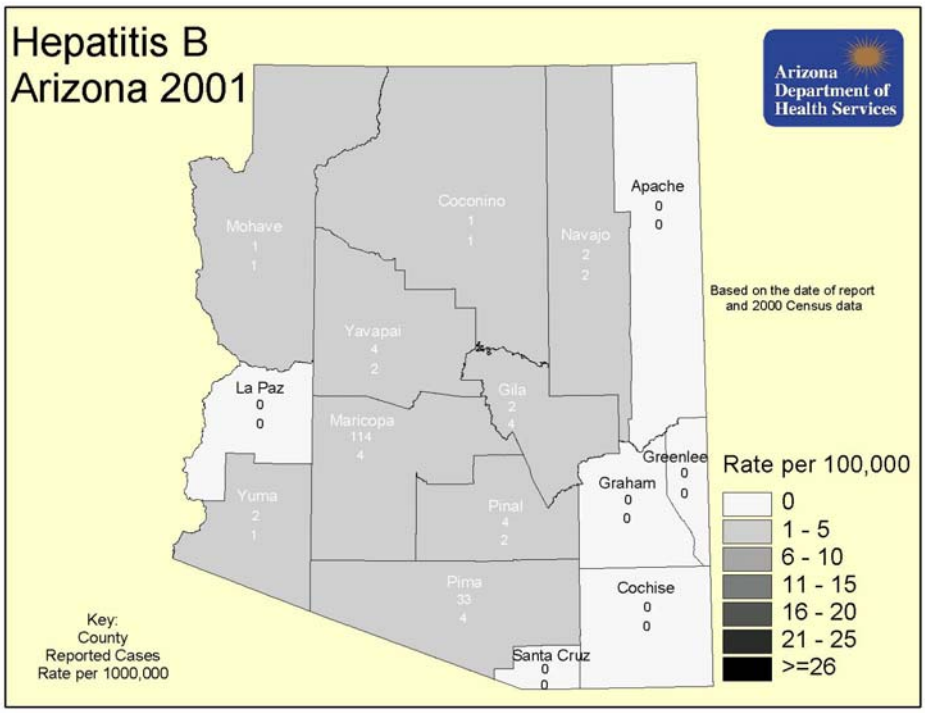

Gender and Age Specific Rates of Reported Hepatitis A Infection in Arizona, 2001
Cases per 100,000
0
2
4
6
8
10
12
14
8.5
7.4
4.7
11.5
9.5
9.3
10.8
10.6
6.5
6.5
6.7
4.4
6.3
3.4
10.2
Male
Female
< 5
5-9
10-15
15-19
20-24
25-34
35-44
45-54
55-59
60-64
65-74
75-84
85+
Gender and Age Groups (Yrs)



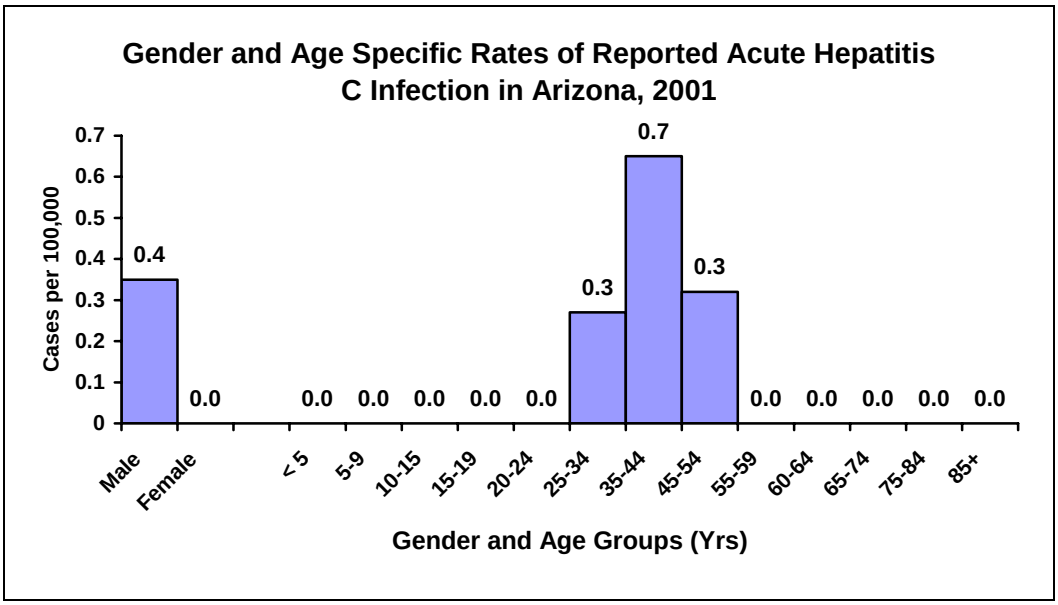
There were 409 cases of hepatitis A reported in 2001, reflecting approximately 8 cases per 100,000 population. The border counties of Yuma (60 cases) and Santa Cruz (34 cases) had 4.7 times and 9 times the state rate in 2001. Rates for reported cases in those less than five decreased from 10.5 per 100,000 in 2000 to 4.7 per 100,000 in 2001. For older age groups, there was an increasing trend. Rates were 4.4 times greater in 2001 than 2000 for those between 60-74 year olds. Individuals greater than 85 had rates 3.5 times higher in 2001 than the previous year (10.2 vs. 2.9 per 100,000). Hepatitis A rates peaked in 1990, 1994 and 1997. However, the overall rate of reported hepatitis A has fallen below inter-epidemic levels for the past two years. This drop could be partially attributable to the institution of required hepatitis A vaccine in children two to five years of age attending licensed or registered child care in Maricopa County as of 1999, and increased use of hepatitis A vaccine in the control of community outbreaks of hepatitis A. Nationally, rates have fluctuated from 12.64 per 100,000 in 1990 to 11.22 in 1997 and decreased to 8.59 in 1998 and 6.25 in 1999.


Rates of Reported Hepatitis B in Arizona, 1990-2001
Cases per 100,000 population
0
1
2
3
4
5
6
7
8
9
10
8.9
3.9
4.2
2.0
2.0
2.3
4.4
3.7
3.1
2.5
4.2
3.1
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
Year of Onset or Diagnosis


Gender and Age Specific Rates of Reported Acute Hepatitis B Infection in Arizona, 2001
Cases per 100,000
0
1
2
3
4
5
6
7
8
4.5
1.9
0.0
0.0
0.0
1.1
4.7
5.7
7.2
2.7
1.7
4.9
1.1
2.1
2.9
Male
Female
< 5
5-9
10-15
15-19
20-24
25-34
35-44
45-54
55-59
60-64
65-74
75-84
85+
Gender and Age Groups (Yrs)



There were 164 incident cases of hepatitis B reported in 2001, reflecting approximately 3 cases per 100,000 population. Case rates peaked among those aged 35 to 44 years at 7.2 per 100,000. Males were 2.4 times more likely to be reported than females. Pima and Gila counties had the highest rates at 3.9 cases per100,000 population. National rates have steadily decreased from 8.48 per 100,000 in 1990 to 2.82 in 1999. There were five cases of Hepatitis D reported in 2001. All reported cases were in males between the ages of 25-44. Individuals who are diagnosed with Hepatitis D must also be or have been diagnosed with Hepatitis B. It may occur as an acute infection or can progress to a chronic state.



In Arizona, nine cases of acute Hepatitis C were reported with a rate of 0.2 per 100,000 individuals. All nine cases were in males in the age group 25-54. In addition, all of the reported cases came from correctional facilities.

Chronic Hepatitis C Infection

From 1998 through 2001, there are 20,552 reported cases of chronic hepatitis C infection in Arizona. Chronic hepatitis C was defined as testing positive for hepatitis C but not meeting the Centers for Disease Control and Prevention/Council of State and Territorial Epidemiologists case definition of an acute case of hepatitis C. Of these cases, 7,076 (34%) were confirmed by recombinant immunoblot assay or polymerase chain reaction. (Figure 1). Based on the Centers for Disease Control and Prevention estimates for the nation, there are an estimated 92,000 individuals with hepatitis C infection in Arizona. Thus, excluding unconfirmed cases, Arizona has identified approximately 8% of the estimated cases within the state.

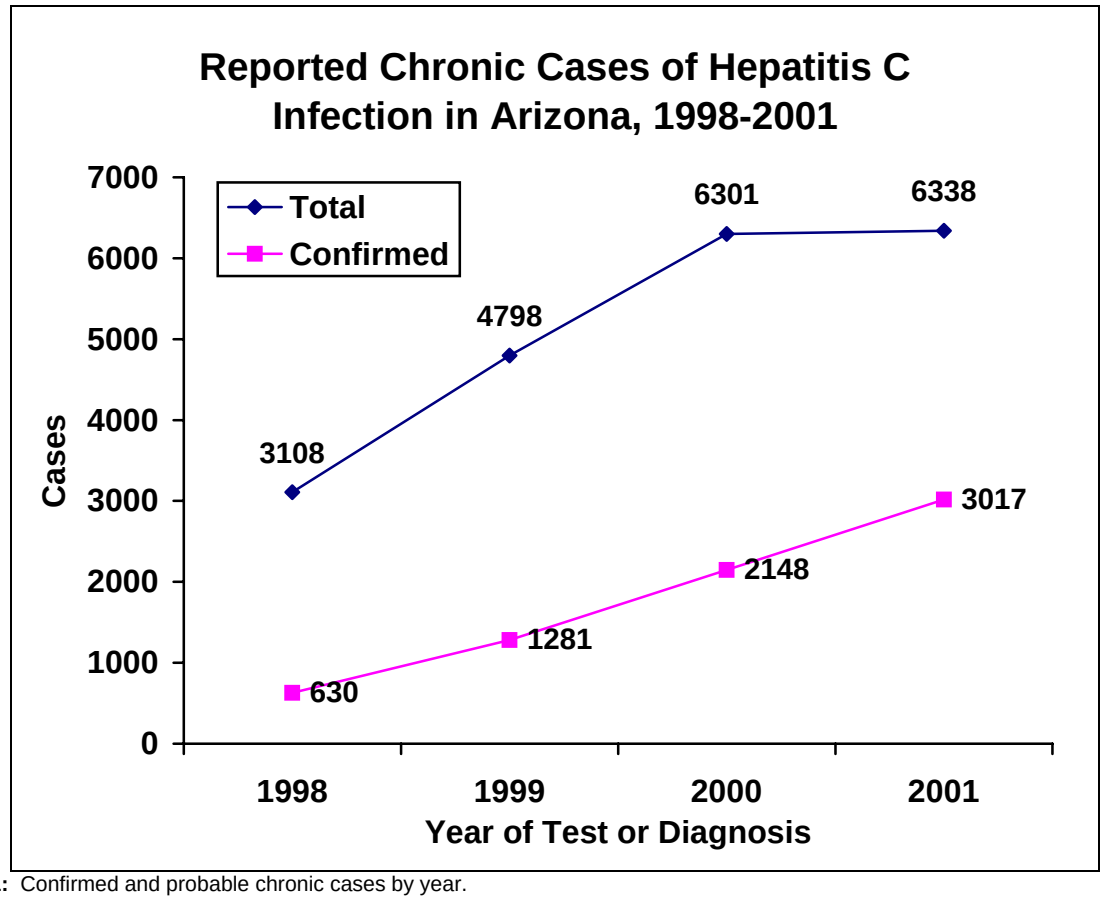


Figure 1: Confirmed and probable chronic cases by year.

During the year 2001, there were 6,338 newly reported chronic cases of hepatitis C virus infection, of which, 3,017 (48%) are confirmed. Geographically, Pinal County had the highest reporting rate at 251 per 100,000 population, or 2.6 times the next highest rate in Yavapai County or 4.2 times the state rate of 58.8 reports per 100,000 population for the year (Figure 2). The high rate in Pinal County can be attributed to a concentration of correctional facilities which reported 81% of the cases in that county. Statewide, only 10% of the reported cases were residing in prison.

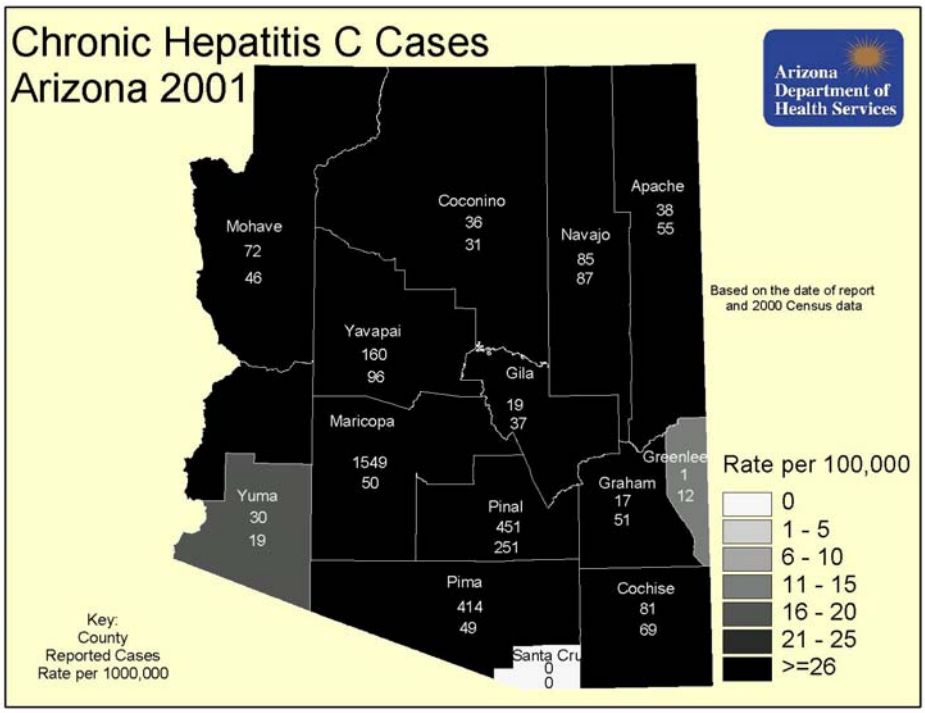


Figure 2: Map of Reported Cases and Rates of Chronic Hepatitis C in Arizona, 2001

Males were 2.5 times more likely to be reported than females. By age group, reporting rates among those aged 35 to 54 years are more than twice that of all other age groups (Figure 3). Of the 29% reporting ethnicity, non-Hispanics were 1.4 times more likely to be reported. Of the 27% reporting race, Asians had the lowest reporting rate of 7.6 per 100,000, with Native Americans 1.2 times, Whites 2.3 times, and Blacks 3.9 times that of Asians.

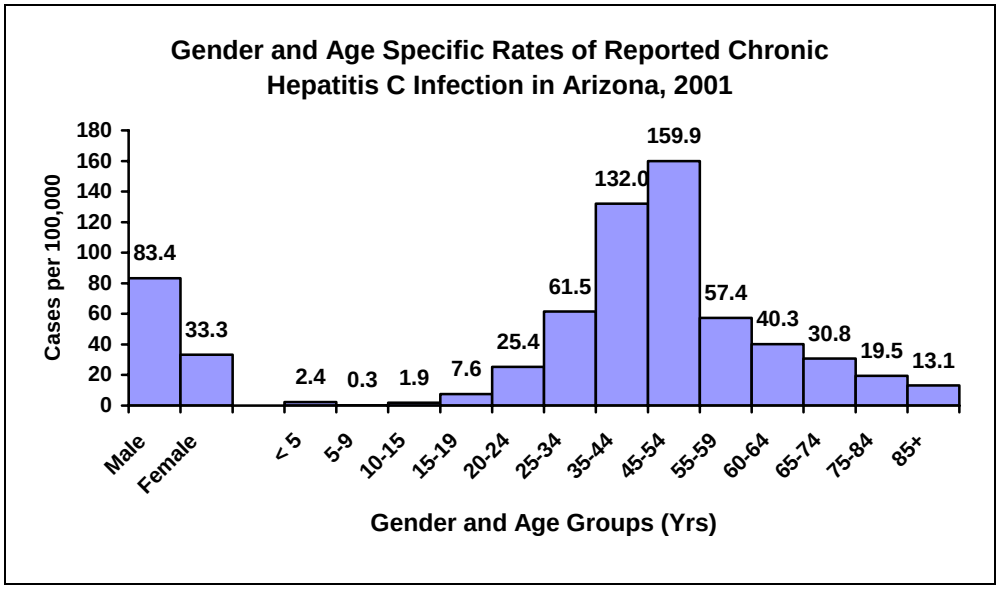


Figure 3

HCV Surveillance and Targeted Education Pilot Program, Maricopa County

Communicable disease investigators attempted to contact 925 patients who were confirmed cases of chronic hepatitis C or who had a positive screening test for hepatitis C and had a blood transfusion prior to 1992 or had a past/current history of injection drug use. Questionnaires designed to assess risk

factors, demographics, and the need for medical and social services were successfully administered to 50% of the 925 patients. The investigators could not locate 23%; and12% of the patients declined an interviewed. Twenty-one patients (2%) were deceased and the remaining 13% were unable to respond due to their medical condition or a language barrier.

Of those interviewed, 43% were unemployed (Table 1), which is 8 times the unemployment rate in the Phoenix/Mesa metropolitan areas[1]. Only 22% were uninsured, which is lower than the general population (Table 2). This may reflect the selection of confirmed cases, who all required additional tests or procedures to be confirmed.

Employment Status	Cases	Percentages
Full-time	230	50%
Unemployed	201	43%
Retired	32	7%

Table 1: Employment status of cases. Number and percentages of cases engaged in full-time employment, retired, or unemployed.

Insured Status	Cases	Percentages
Private Insurance	205	44%
Medicare/State Funded	133	29%
Veterans Administration	13	3%
Other Insurance	11	2%
Uninsured	102	22%

Table 2: The type of insurance, or lack of insurance, carried by cases.

Some form of hepatitis C treatment was received by 23% of the confirmed cases. Surprisingly, only 22 and 25 percent of confirmed cases had received at least one dose of hepatitis A or hepatitis B vaccine, respectively (Table 3).

Vaccinated	Cases	Percentages
Hepatitis A Vaccine	101	21.8%
Hepatitis B Vaccine	118	25.4%
None/Unknown	346	74.6%

Table 3: Number and percentages of cases receiving a vaccine. Categories are exclusive.

Figure 4 shows the percentage distribution of risk associated with hepatitis C. The most common risk factor was IV drug use (45%), followed by blood transfusion received prior to 1992 (29%). More than 19% of those questioned denied any of the listed risk factors.

[1] Bureau of Labor and Statistics http://data.bls.gov/cgi-bin/surveymost?la+04

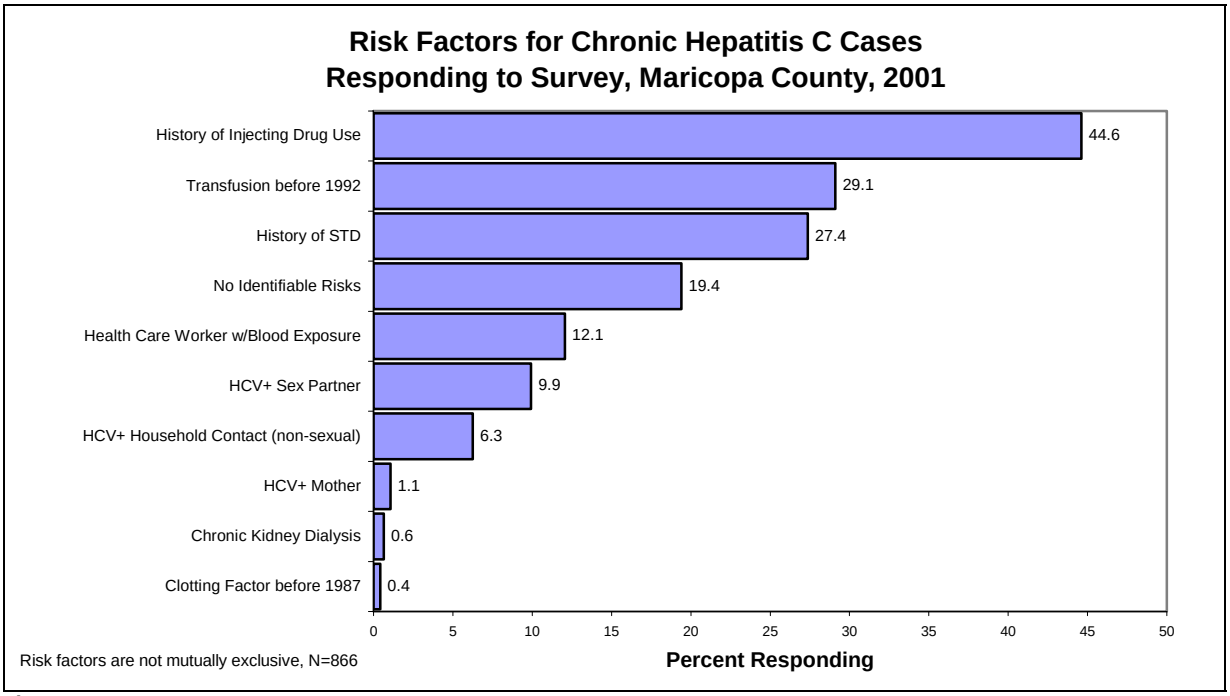
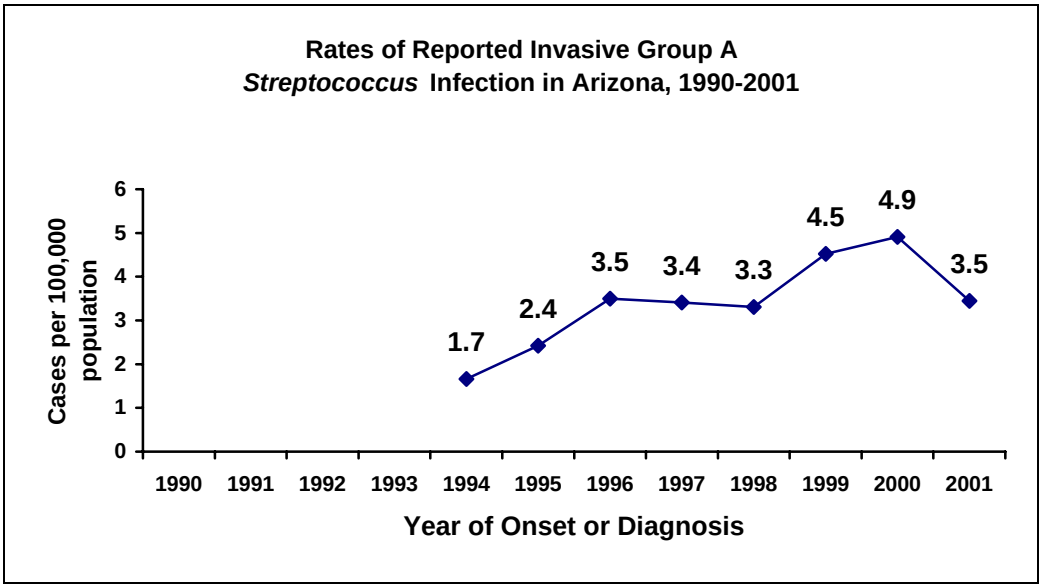
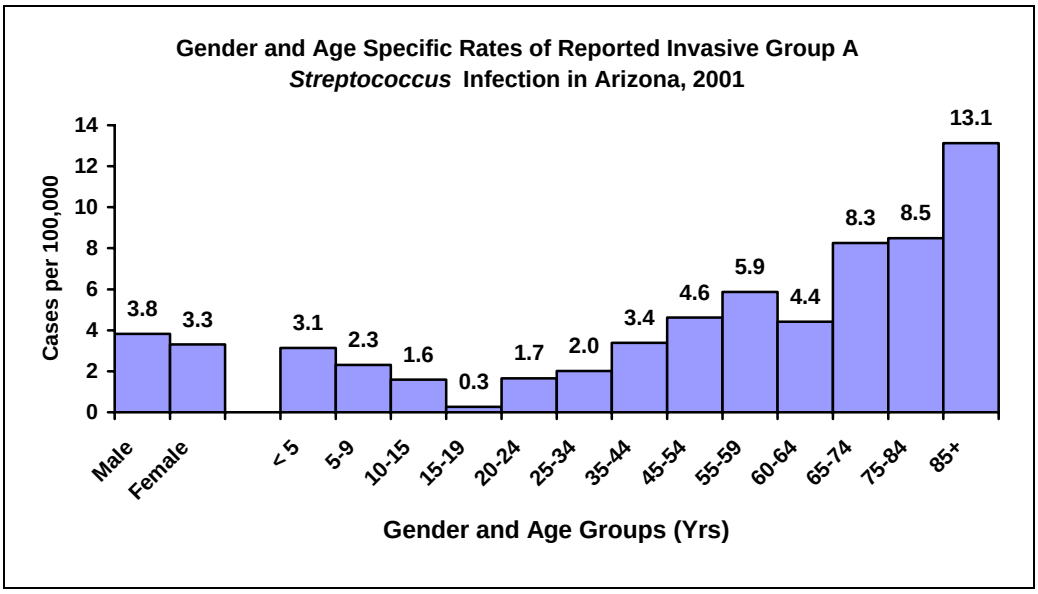
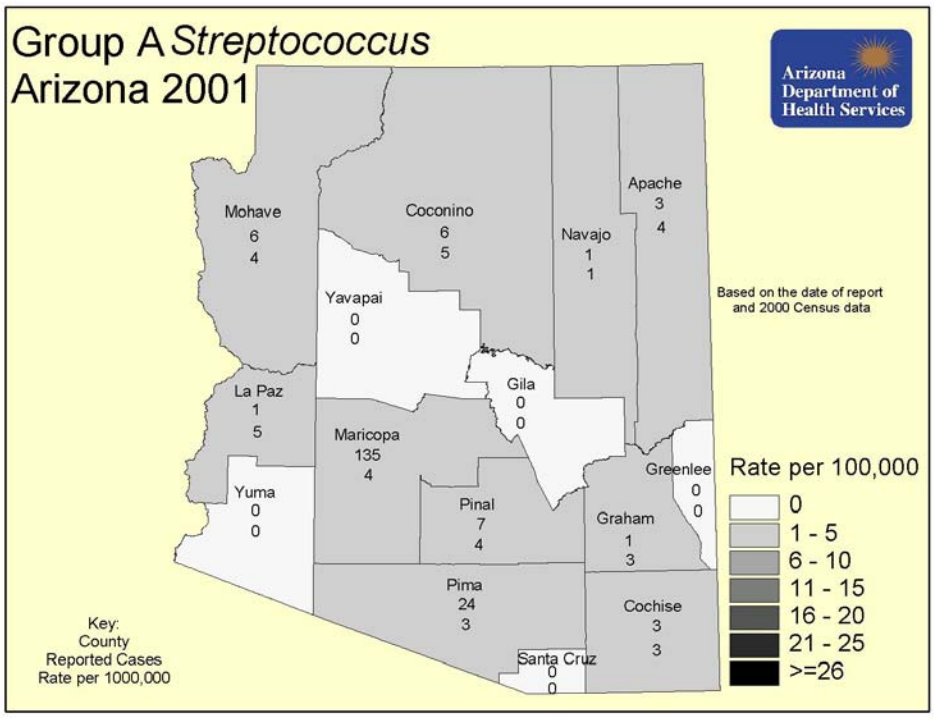

Risk Factors for Chronic Hepatitis C Cases
Responding to Survey, Maricopa County, 2001
History of Injecting Drug Use
Transfusion before 1992
History of STD
No Identifiable Risks
Health Care Worker w/Blood Exposure
HCV+ Sex Partner
HCV+ Household Contact (non-sexual)
HCV+ Mother
Chronic Kidney Dialysis
Clotting Factor before 1987
44.6
29.1
27.4
19.4
12.1
9.9
6.3
1.1
0.6
0.4
0
5
10
15
20
25
30
35
40
45
50
Percent Responding
Risk factors are not mutually exclusive, N=866

Figure 4

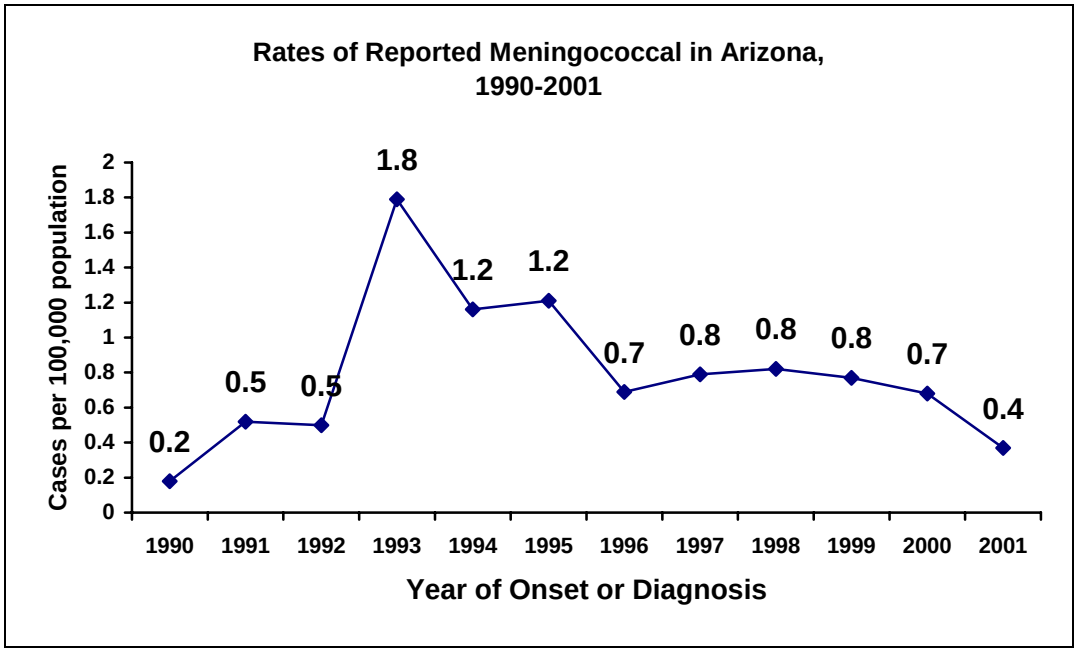
E. INVASIVE DISEASES

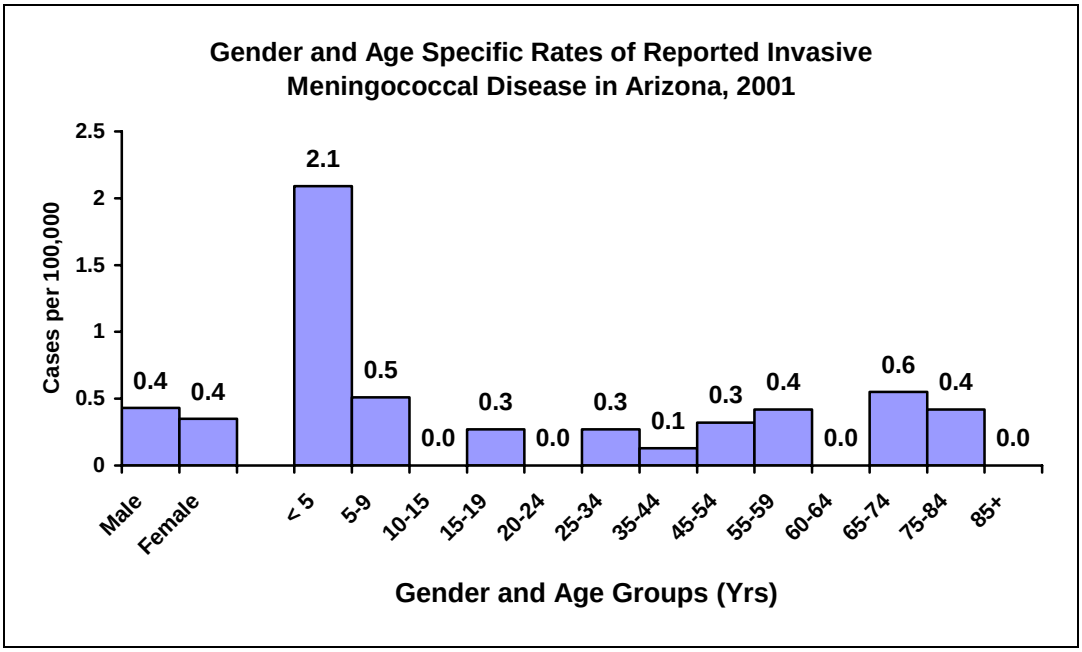

Rates of Reported Invasive Group A
Streptococcus Infection in Arizona, 1990-2001
Cases per 100,000 population
0
1
2
3
4
5
6
1.7
2.4
3.5
3.4
3.3
4.5
4.9
3.5
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
Year of Onset or Diagnosis


Gender and Age Specific Rates of Reported Invasive Group A
Streptococcus Infection in Arizona, 2001
Cases per 100,000
0
2
4
6
8
10
12
14
3.8
3.3
3.1
2.3
1.6
0.3
1.7
2.0
3.4
4.6
5.9
4.4
8.3
8.5
13.1
Male
Female
< 5
5-9
10-15
15-19
20-24
25-34
35-44
45-54
55-59
60-64
65-74
75-84
85+
Gender and Age Groups (Yrs)

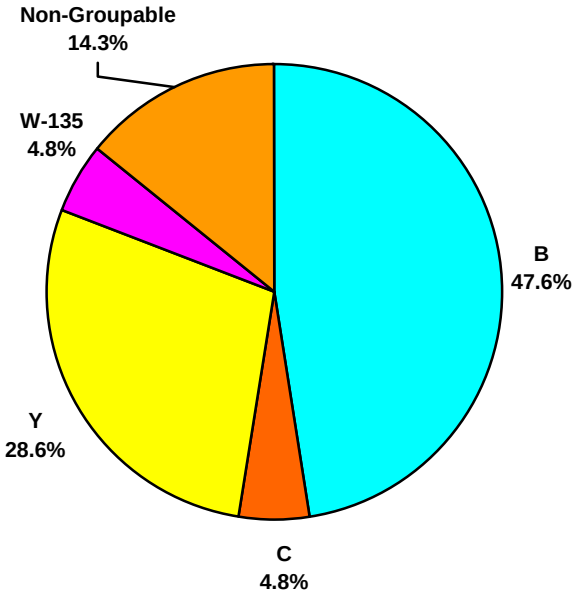


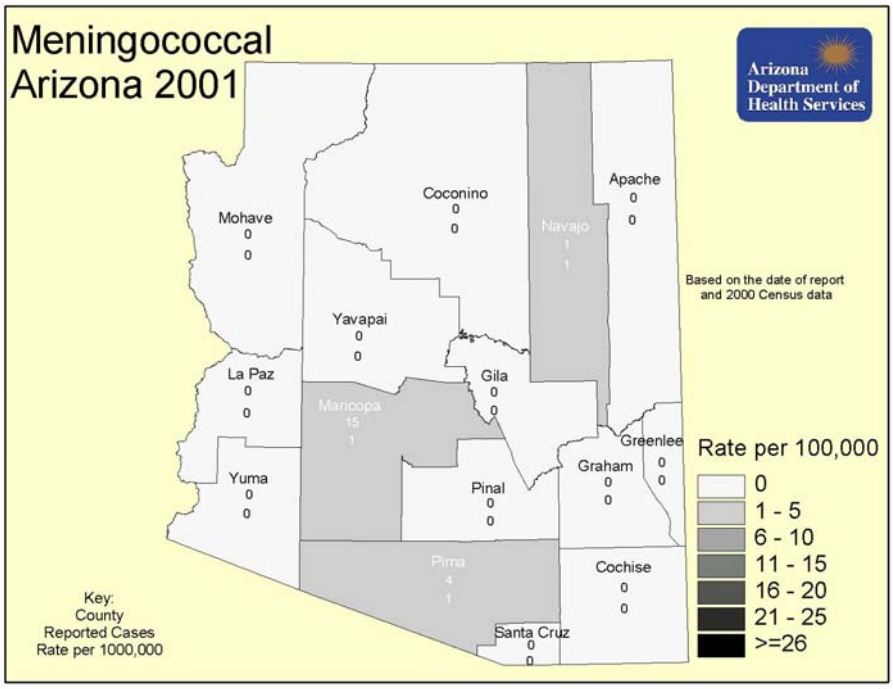
Invasive Group A *Streptococcus* disease became reportable in Arizona in 1993 and nationally notifiable since 1995. There were 187 (3.64 cases per 100,000 population) cases reported in 2001. Supplemental disease information was available on eighty-nine (48%) of the reported cases. The most common infection reported was cellulitis with a secondary bacteremia (33.7%). Thirteen cases (15%) had streptococcal toxic shock syndrome with a case fatality rate of 69%. Twelve cases (13%) had necrotizing fasciitis with a case fatality rate of 27%. Apache county had the highest rate (7.2 cases per 100,000 population).


Rates of Reported Meningococcal in Arizona, 1990-2001
Cases per 100,000 population
0
0.2
0.4
0.6
0.8
1
1.2
1.4
1.6
1.8
2
0.2
0.5
0.5
1.8
1.2
1.2
0.7
0.8
0.8
0.8
0.7
0.4
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
Year of Onset or Diagnosis

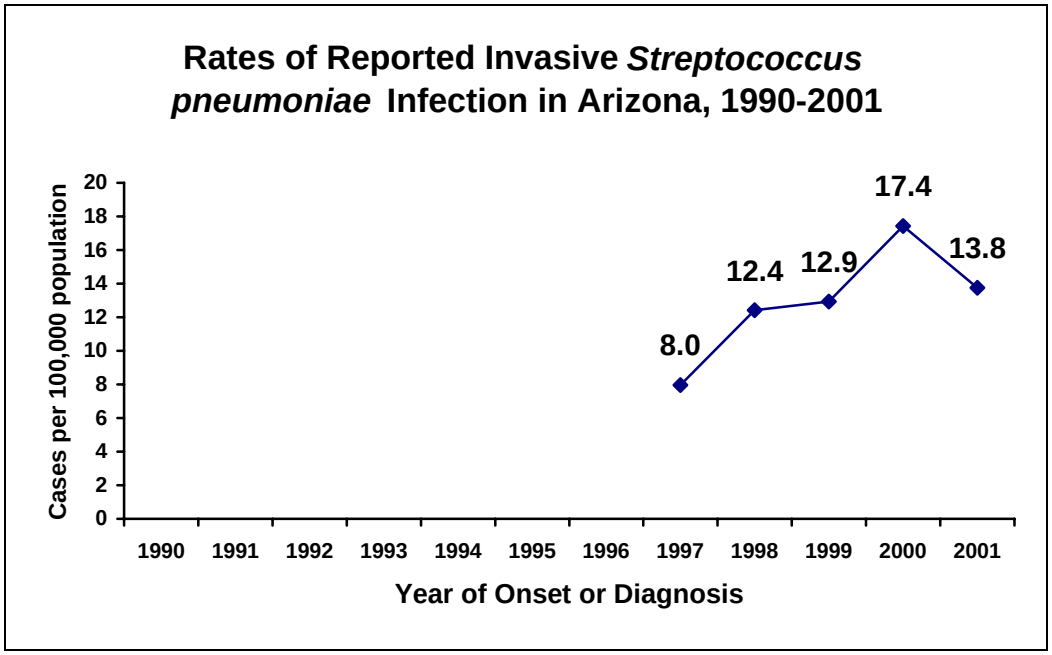

Gender and Age Specific Rates of Reported Invasive Meningococcal Disease in Arizona, 2001
Cases per 100,000
0
0.5
1
1.5
2
2.5
0.4
0.4
2.1
0.5
0.0
0.3
0.0
0.3
0.1
0.3
0.4
0.0
0.6
0.4
0.0
Male
Female
< 5
5-9
10-15
15-19
20-24
25-34
35-44
45-54
55-59
60-64
65-74
75-84
85+
Gender and Age Groups (Yrs)

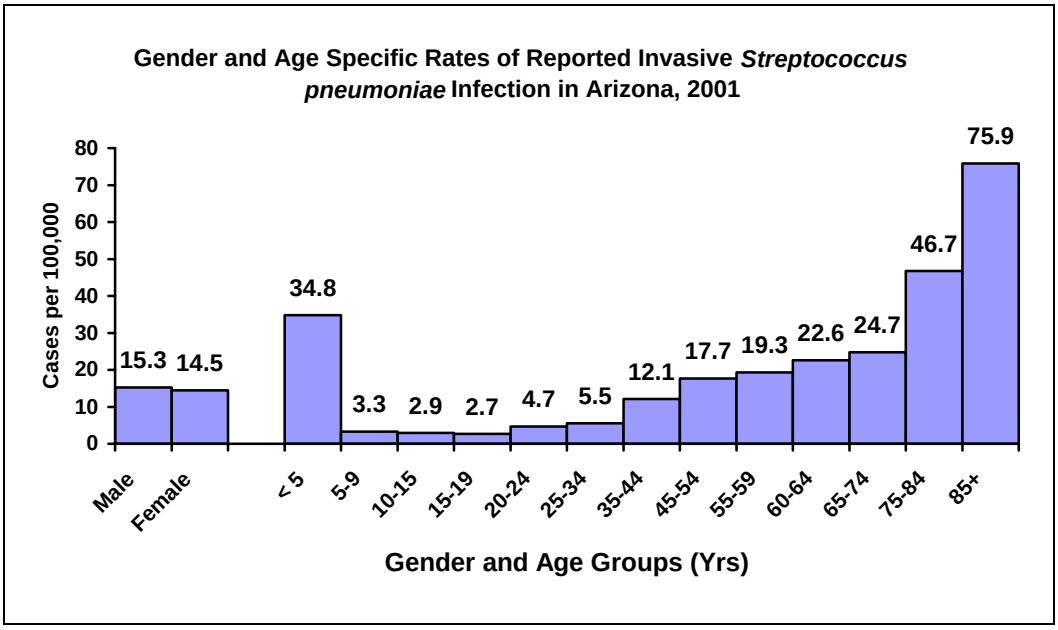
Reported Invasive Meningococcal Disease
Reported Cases in Arizona by Serogroup, 2001 (n = 21)





There were 21 cases of meningococcal invasive disease reported in 2001, reflecting less than 1 case per 100,000 population. Rates were highest among those under age five years (2.09 per 100,000). Serogroups Y and B were predominant at 28.6% and 47.6%, respectively. National rates have fluctuated around 1 case per 100,000 from 1990 to 1999.


Rates of Reported Invasive Streptococcus pneumoniae Infection in Arizona, 1990-2001
Cases per 100,000 population
0
2
4
6
8
10
12
14
16
18
20
8.0
12.4
12.9
17.4
13.8
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
Year of Onset or Diagnosis

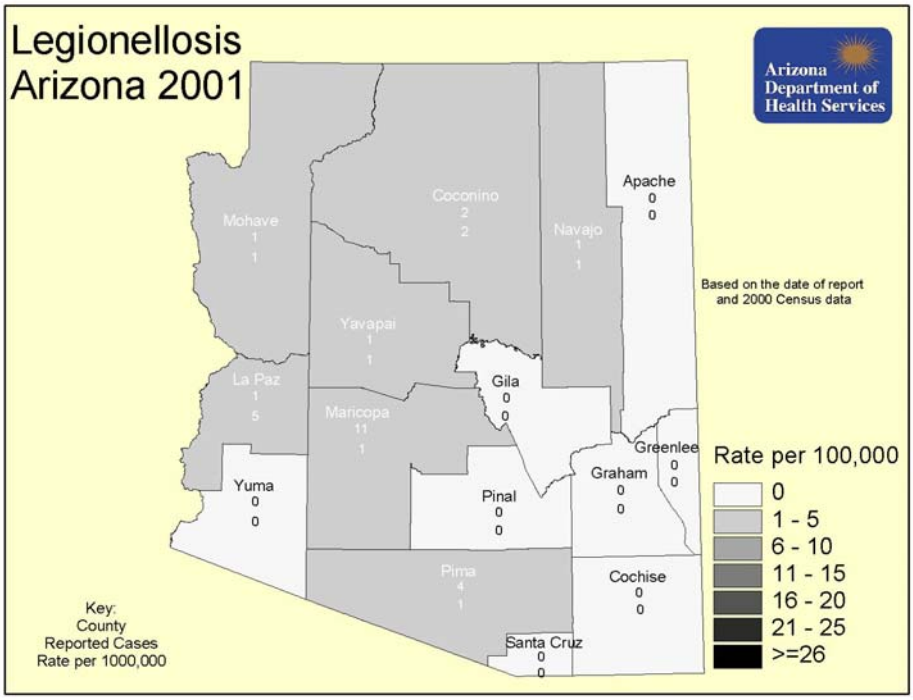

Gender and Age Specific Rates of Reported Invasive Streptococcus pneumoniae Infection in Arizona, 2001
Cases per 100,000
0
10
20
30
40
50
60
70
80
15.3
14.5
34.8
3.3
2.9
2.7
4.7
5.5
12.1
17.7
19.3
22.6
24.7
46.7
75.9
Male
Female
< 5
5-9
10-15
15-19
20-24
25-34
35-44
45-54
55-59
60-64
65-74
75-84
85+
Gender and Age Groups (Yrs)

Invasive *Streptococcus pneumoniae* became reportable in April 1997. There were 782 (15.2 per 100,000 population) reported cases of invasive pneumococcal disease in 2001. Case fatality rate of 292 cases with known outcomes was 14%. Penicillin resistance for all ages was 29% in 2000 and 27.1% in 2001. Forty-five percent of the reported cases had supplemental information reported. Fifteen percent of the reported cases had pneumococcal meningitis with a case fatality rate of 28%.

Invasive Group B *Streptococcus* became reportable in April 1997. The disease is reportable in infants because it may be prevented if mothers are identified as Group B *Streptococcus* carriers in the third trimester of pregnancy. There were 55 (0.7 per 1000 live births*) cases reported in 2001. Of the cases with known race/ethnicity, 21% were Hispanic.

*based on provisional 2001 birth data, March 25, 2002

F. LEGIONELLOSIS


Legionellosis
Arizona 2001
Arizona Department of Health Services
Mohave 1 1
Coconino 2 2
Navajo 1 1
Apache 0 0
Yavapai 1 1
La Paz 1 5
Maricopa 11 1
Gila 0 0
Greenlee 0 0
Graham 0 0
Yuma 0 0
Pinal 0 0
Pima 4 1
Cochise 0 0
Santa Cruz 0 0
Based on the date of report and 2000 Census data
Rate per 100,000
0
1 - 5
6 - 10
11 - 15
16 - 20
21 - 25
>=26
Key:
County
Reported Cases
Rate per 1000,000

G. OUTBREAK INVESTIGATIONS

Foodborne Outbreaks, Arizona 2001

Outbreak of *Salmonella* Serotype Kottbus, 2001[2]

Background:

On March 12, 2001, the California Department of Health Services (CDHS) identified a cluster of *Salmonella* Kottbus isolates with indistinguishable pulsed-field gel electrophoresis (PFGE) patterns. During February 1--May 1, CDHS identified 23 patients with *S.* Kottbus infections in several California counties and an additional patient from Arizona. This report summarizes the results of the investigation of this outbreak, which identified cases in four states and implicated alfalfa sprouts produced at a single facility. Following the case-control study, an additional 32 individuals infected with the outbreak strain of *S.* Kottbus were identified in California (24), Arizona (six), Colorado (one), and New Mexico (one).

Methods and Results:
Using a standardized questionnaire, a matched case-control study was conducted. A case was defined as culture-confirmed *S.* Kottbus infection, matching the outbreak PFGE pattern, with onset after January 2001. The median age of cases was 36 years (range: 9--72 years) and 16 patients (67%) were female; twenty-one patients developed an acute diarrheal illness, three patients had urinary tract infections, and three patients were hospitalized. The first 10 reported California patients were matched with two controls by age group, sex, and city prefix code. Fifteen (63%) of the 23 cases ate alfalfa sprouts during the week before becoming ill. A significant association was found between eating alfalfa sprouts and illness (matched odds ratio: 5.5; 95% confidence interval=1.2--26.1). No other food or restaurant exposure was significantly associated with illness.

A trace-back investigation identified a single sprout producer as the source of the contaminated sprouts. Review of the sprout production records indicated that a single seed lot was associated with the dates of illness onset. Cultures from this seed lot as well as two floor drains in the production facility yielded *S.* Kottbus. Patient, seed, and environmental isolates all had indistinguishable PFGE patterns. The sprout production facility issued a voluntary recall of all sprout products on April 17, and ceased all sprout production pending further internal review of their production processes. Review of decontamination and distribution records indicated that at least some seeds did not undergo the U.S. Food and Drug Administration (FDA) approved decontamination procedure of soaking in a 20,000-ppm calcium hypochlorite for 15 minutes. The sprout producers agreed to use only the FDA-recommended 20,000-ppm soak when sprout production resumed.

Conclusion:
S. Kottbus is a rarely reported cause of Salmonellosis in the United States. During 1968-1998, a median of 42 *S.* Kottbus isolates were reported each year to CDC through the Public Health Laboratory Information System. This was the second S. Kottbus outbreak reported since 1985 and the first associated with sprouts. In the past five years, seventeen outbreaks associated with sprouts have been reported to CDC.

Efforts to educate the public on the risk of eating uncooked sprouts need to be continued, particularly among vulnerable populations such as the elderly, young children, and immunocompromised persons. CDC and FDA recommend that persons at high risk for systemic infections not eat raw sprouts. Public health officials should promote awareness of the role of raw sprout consumption in foodborne disease and consider package labeling as a method for improving consumer awareness.

[2] Report adapted from *Outbreak of Salmonella serotype Kottbus Infections Associated with Eating Alfalfa Sprouts --- Arizona, California, Colorado, and New Mexico, February--April 2001*. MMWR. 2002; 51(01);7-9

Outbreak of Gastroenteritis at a Yavapai County School, April 2001

An outbreak of unknown etiology resulted in gastrointestinal illness for 29 students at a Yavapai county boarding school. Predominant signs and symptoms included nausea (83%), vomiting (70%), diarrhea (66%), and headache (51%). Environmental investigations and case interviews were conducted by the Yavapai County Department of Environmental Health and included an inspection of kitchen facilities, collection of food samples, and questions related to cafeteria food consumption. Although a tofu stir fry meal appeared to be associated with illness, no food items were statistically significant and environmental samples were negative for bacterial growth and *B. cereus* toxin. In addition, onset dates of cases clustered around April 12-13 suggesting a point source outbreak. However, it is possible that this outbreak was associated with a viral agent transmitted person to person, since students in dormitories are particularly vulnerable due to the close contact and extended duration of exposure in these settings. Education was provided to both kitchen employees and students emphasizing handwashing.

Outbreak of *Salmonella* Serotype Poona, 2001[3]

Background:

On May 1, 2001, the California Department of Health Services notified officials at the Arizona Department of Health Services of a possible multi-state outbreak of H2S-negative *Salmonella* serotype Poona. Approximately 35 cases, including 5 cases from Arizona, were identified with *S.* Poona infection across the western United States. A case-control study implicated cantaloupe as the source of infection.

Methods and Results:

A matched case control study was conducted using a standard questionnaire including questions regarding symptoms, produce consumption, and point of purchase information. Eleven cases and 21 controls were involved in the study. The average age of cases was 31 years and 58 percent of cases were males. Ten patients were hospitalized for *Salmonella* infection and two of these patients died. Of all the foods analyzed, only consumption of cantaloupe had a statistically significant association with illness (matched odds ratio: 7.4, 95% confidence interval=1.04 – 178).

A trace-back investigation was initiated by the California Department of Health Services. Trace-back analysis revealed two suspect cantaloupe operations from Mexico. The Food and Drug Administration (FDA) placed a recall on all cantaloupe imported from these companies.

Conclusion:

Cases of H2S-negative Salmonella Poona are rare with no cases reported in California or Arizona since 1998. This outbreak continues the relationship of *Salmonella* infection and fresh produce. Contamination of produce may occur both during and prior to preparation, emphasizing that care must be taken to wash all produce carefully prior to use.

[3] Report adapted from California Department of Health Services

Foodborne Botulism Case, June 2001

The Arizona Department of Health Services identified the first confirmed case of foodborne botulism in the state since 1997. An adult female residing in Maricopa County presented to an area hospital in mid-June with blurred vision, nausea, and vomiting. Despite medical treatment, her condition continued to worsen resulting in upper extremity weakness and eventually respiratory failure. Based upon symptom progression, physicians consulted with officials at the Arizona Department of Health Services and the Centers for Disease Control and Prevention (CDC) to arrange for botulism testing and release of antitoxin therapy.

Investigation by state and local officials traced the source of infection to a homemade pickled meat product prepared by the patient. Food samples from the pickled product and clinical samples were tested for presence of *Clostridium botulinum* toxin. Both clinical and pickled juice samples tested positive for *C. botulinum* toxin A at the Centers for Disease Control and Prevention. Subsequent investigation demonstrated improper preparation and food handling techniques as the cause of contamination. The patient was treated with antitoxin at a Maricopa hospital. No additional cases were reported.

Outbreak of Campylobacteriosis associated with local Mexican restaurant, Yavapai County, August 2001

Background:

On August 10, 2002, the Yavapai County Department of Environmental Health notified the Arizona Department of Health Services of a possible outbreak of Campylobacteriosis. An investigation by Yavapai County Health Department professionals resulted in the discovery of 62 cases of gastrointestinal illness associated with an area Mexican restaurant. Environmental inspections discovered inadequate cooking and cooling temperatures at the facility, which may have resulted in bacterial contamination

Methods:

A case was defined as any person who had eaten food from a restaurant during the week of July 29 – August 4 and had symptoms of fever, abdominal cramps, and diarrhea. Cases finding occurred initially through complaint reports, referrals, and active surveillance at Yavapai Regional Medical Center Emergency Room. Case interviews were conducted by investigators at the Yavapai Communicable Disease Section and clinical specimens were collected for testing and Pulsed Field Gel Electrophoresis. Food histories revealed a particular area Mexican restaurant where a large proportion (80%) of cases had eaten. Environmental inspections were conducted at the facility and food samples were collected for analysis at the state laboratory.

Results:

Onset dates for cases ranged from August 1 – August 8, 2001 with the majority of cases occurring on August 4th and 5th. Campylobacter infection was confirmed in 16 (26%) of the cases. The predominant symptoms reported were fever, diarrhea, and abdominal cramps. Thirty-seven of the cases (64%) reported visiting a doctor and 4 of these cases were hospitalized due to the severity of symptoms. The median incubation period was 3 days and the duration of illness ranged from 3-10 days with a median of 7 days.

Environmental inspections uncovered several potential contamination points including:

- Improper refrigeration. The refrigerator was broken for several days resulting in improper cooling of food items.
- Improper cooling. Cooked meats were left to cool at room temperature before being placed in the refrigerator.
- Potential cross contamination. A cutting board was used that was in the path of raw meat drippings.

Although food samples were negative for *Campylobacter,* clinical isolates were matched using Pulsed Field Gel Electrophoresis (PFGE) indicating a single transmission source.

Conclusions:
This outbreak underlines the need for appropriate temperature handling of all foods to prevent bacterial growth. In addition, education of food handlers and restaurant proprietors should be encouraged as an integral portion of food safety.

Salmonella outbreak on Tribal land, Sells, September 2001

There were 8 cases of Salmonella serotype Anatum reported during September 2001. The cases were associated with potato salad consumption at a funeral held on September 7, 2001. Approximately 85 individuals attended the wake and 35 of the attendees reported illness with gastrointestinal symptoms. One case was hospitalized due to the severity of symptoms. Investigation was conducted through Public Health Nursing at Sells Indian Hospital.

Multi-state outbreak of _Salmonella_ serotype Senftenberg, Fall 2001[4]

Introduction:
During October and November of 2001, 40 cases of *Salmonella* serotype Senftenberg were identified with matching PFGE patterns in 6 Western states: California (16), Colorado (15), Arizona (5), Nevada (2), New Mexico (1), Utah (1). A matched case control study was initiated by several western states and green grapes were identified as a suspect vehicle for infection.

Methods:
Detailed interviews, including food histories, identified no obvious vehicle or common event attended by multiple cases. A matched case control study was performed by the Colorado Department of Health using 2 controls per case, matched by age and telephone prefix. A case was defined as having a PFGE matched isolate of *Salmonella* Senftenberg from September to November 2001. Controls were obtained using random digit dialing. Epidemiologists in each affected state administered a standard questionnaire to both cases and controls. Cases were asked questions about food consumption during the week prior to illness. Controls were questioned about food consumption in the first week of November to correct for possible recall bias, since consumption patterns should not vary greatly from those in earlier months. In total, 25 cases and 50 controls participated in the study, including one case and two controls from Arizona. In addition, environmental health inspections were conducted at the establishments where cases reported consuming grapes and product information was acquired during these visits.

Results:
Green grapes were significantly associated with illness in all analyses performed, Matched Odds Ratio (OR)=6.7 (95% Confidence Interval (CI) of 1.8-24.2). The OR remained significant when separate analyses were performed in California and Colorado. In contrast, red grape consumption was not significantly associated with illness in any analyses.

[4] Report adapted from Colorado State Health Department

Other food items had slightly elevated odds ratios; however, the point estimate was highest for green grapes and no other foods were statistically significant. Although the odds ratio for chicken was 3.0, the confidence interval was wide and included one (CI 0.4-23.7). The Food and Drug Administration initiated a trace-back investigation; unfortunately, there was not enough data available to complete the investigation.

Conclusions:
Epidemiologic evidence suggests that green grapes were the implicated vehicle in this outbreak, although environmental samples and support are lacking. This outbreak emphasizes the need to wash all fresh produce prior to consumption and underscores the requirement for timely reporting and investigation of enteric disease cases.

G. SEXUALLY TRANSMITTED DISEASES

CHLAMYDIA

Infections due to Chlamydia trachomatis are the most commonly reported notifiable disease of all sexually transmitted diseases in Arizona. In women these infections often result in pelvic inflammatory disease, which can cause infertility, ectopic pregnancy, and chronic pelvic pain. In addition, pregnant women infected with chlamydia can infect their babies during delivery. As with other inflammatory STDs, chlamydia infection can facilitate the transmission of HIV infection.

In 2001, 14,357 chlamydial infections were reported to the State STD Control program from Arizona's 15 counties. Reported cases of chlamydia far exceed reported cases of gonorrhea (3,923 gonorrhea cases in 2000).

From 1987 through 2001 reported rates of chlamydia increased from 80.4 cases per 100,000 persons to 279.8. This trend reflects increased screening, recognition of asymptomatic infection (mainly in women), and improved reporting, as well as the continuing high burden of disease.

In 2000, the chlamydia case rate was highest in Apache and Navajo counties, reflecting an extensive screening activity in these counties, especially in family planning clinics of Indian Health Services.

Reported rates of chlamydia for women (435.9 per 100,000 persons) exceed three times those for men (123.1). This is mainly due to detection of asymptomatic infection in women through screening. The low rates in men suggest that many of the sex partners of women with chlamydia are not diagnosed or reported. In addition, men diagnosed as having non-gonococcal urethritis are treated but frequently not tested. A large proportion of these men are infected with chlamydia, but they are not detected by the state surveillance system based on laboratory reporting of positive chlamydia tests. From 1997 to 2001, the reported chlamydial infection rates in males increased by almost 29% (from 95.2 to 123.1 per 100,000 males), compared with a 17%increase in women over this period (from 372.8 to 435.9 per 100,000 females).

Rates of chlamydia for women are highest in the 20-to 24-year-older (2,354.4 per 100,000) and in the 15-to 19 year-older (2,274.7). For men, age-specific rates are also highest in these age groups.

In 2001 chlamydia test positivity among 15- to 24-year-old women screened varied from 4.7% to 7.0% among those attending sentinel family planning clinics state wide.

CHLAMYDIA MORBIDITY AND RATES BY AGE GROUP AND SEX ARIZONA 2001						
AGE GROUP	CASES			RATES		
	MALES	FEMALES	TOTAL	MALES	FEMALES	TOTAL
0-4	12	24	36	6.1	12.9	9.4
5-9	1	3	4	0.5	1.6	1.0
10-14	35	233	268	18.1	126.0	70.7
15-19	737	4049	4786	387.9	2274.7	1300.5
20-24	1139	4026	5165	593.2	2354.4	1422.9
25-29	626	1700	2326	321.0	949.7	621.9
30-34	305	640	945	158.0	363.6	256.1
35-39	159	334	493	79.5	174.0	125.8
40-44	70	113	183	37.2	60.1	48.7
45-54	55	74	129	17.9	23.0	20.5
55-64	11	3	14	5.2	1.3	3.2
65 +	2	3	5	0.7	0.7	0.7

RATES BASED ON U.S. CENSUS BUREAU 2000

GONORRHEA

Infections due to Neisseria gonorrhoeae, like those due to Chlamydia trachomatis, remain a major cause of pelvic inflammatory disease, tubal infertility, ectopic pregnancy, and chronic pelvic pain in Arizona. Epidemiologic studies provide strong evidence that gonococcal infections facilitate HIV transmission, and biological studies have begun to elucidate the specific mechanisms through which this facilitation occurs. Reporting of gonococcal infections has likely to be biased towards reporting of infections in persons of minority race or ethnicity who attend public STD clinics.

In 2001, 3,923 cases of gonorrhea were reported in Arizona. The rate of gonorrhea has continued its overall decline since 1990. Between 1999 and 2001 the rate decreased 16% from 91.6 cases per 100,000 to 76.5.

In 2001 gonorrhea rates in Arizona were below the Healthy People 2000 national objective of 100 cases per 100,000 persons.

Gonorrhea rates in both men and women declined in 2001. Rates in men and women were below the Healthy People 2000 objective.

In 2001, gonorrhea rates decreased for some racial groups (White and Hispanic), but increased for the others racial and ethnic groups. The rates for non-Hispanic blacks, Hispanics and Native Americans were above the Healthy People 2000 objective. The gonorrhea rate for blacks decreased by 3%, from 593.5 cases per 100,000 persons in 2000 to 575.5 in 2001, and was almost 18 times greater than the rate for non-Hispanic whites.

Between 2000 and 2001, the gonorrhea rate for 15- to 19-year-old adolescents decreased by 17% from 280.0 to 231.3 cases per 100,000 persons. Women and men 20-to 24-year-olds had the highest rate.

GONORRHEA MORBIDITY AND RATES BY AGE GROUP AND SEX ARIZONA 2001

AGE GROUP	CASES			RATES		
	MALES	FEMALES	TOTAL	MALES	FEMALES	TOTAL
0-4	0	1	1	0	0.5	0.3
5-9	1	0	1	0.5	0	0.3
10-14	5	37	42	2.5	20.0	11.1
15-19	317	534	851	166.9	300.0	231.3
20-24	614	564	1178	319.8	329.8	324.5
25-29	439	247	686	225.1	138.0	183.4
30-34	293	137	430	151.8	77.8	116.5
35-39	236	85	321	118.0	44.3	81.9
40-44	151	51	202	80.3	27.1	53.7
45-54	126	42	168	54.7	13.0	26.7
55-64	26	4	30	12.3	1.7	6.8
65 +	11	1	12	3.8	0.2	1.7

RATES BASED ON U.S. CENSUS BUREAU 2000

SYPHILIS

The rate of primary and secondary syphilis (P&S) reported in the United States is at its lowest level since 1941. Despite the overall declines in the United States, syphilis remains an important problem in Arizona, particularly in Maricopa County and among African-Americans. Syphilis, a genital ulcerative disease, facilitates the transmission of HIV and may be particularly important in contributing to HIV transmission in this part of the state, where rates of both infections are high. Untreated early syphilis during the pregnancy results in perinatal death in up to 40% of cases and if acquired during the previous four years before pregnancy, may lead to infection of the fetus in over 70% of cases.

In 2001, 180 cases of primary and secondary (P&S) syphilis were reported to STD Control program of ADHS, a decline of 5% compared with 2000, when 189 cases were reported. Between 2000 and 2001, the incidence of P&S syphilis in Arizona decreased from 3.8 to 3.5 cases per 100,000 persons and has been slightly below the Healthy People 2000 (HP2000) national objective of 4.0 per 100,000 persons for the last year. However, the current reported rate in Arizona exceeds the new Healthy People 2010 (HP2010) provisional objective of 0.2 cases per 100,000 persons.

There were approximately 1.5 reported cases of early latent syphilis for every reported case of P&S syphilis in year 2001.

In 2001, P&S syphilis rates in 11 counties were below the HP2000 national objective of 4 cases per 100,000. Ten counties reported no cases of P&S syphilis in 2001. Maricopa County accounted for approximately 82% of the reported P&S syphilis cases.

With exception of the Black racial group in the period of 1996 to 2001 the rates of P&S syphilis within racial and ethnic groups have generally increased. However, the 2001 rate for non-Hispanic blacks of 28 cases per 100,000 persons was 31 times greater than the rate for non-Hispanic whites.

Rates for P&S syphilis were 39% higher in men (rate 5.1) than in women (rate 2.0) in 2001. The incidence of P&S syphilis was highest among men and women aged 20-24 years.

Between 1996 and 2001 the overall rate of congenital syphilis increased from 5.6 to 38.6 cases per 100,000 live births.

Between 2000 and 2001 the incidence of congenital syphilis increased 18% (from 32.0 per 100,000 live births to 39.0 per 100,000 live births).

The HP2000 congenital syphilis objective of 40 cases per 100,000 live births was exceeded in Apache, Maricopa, and Navajo counties.

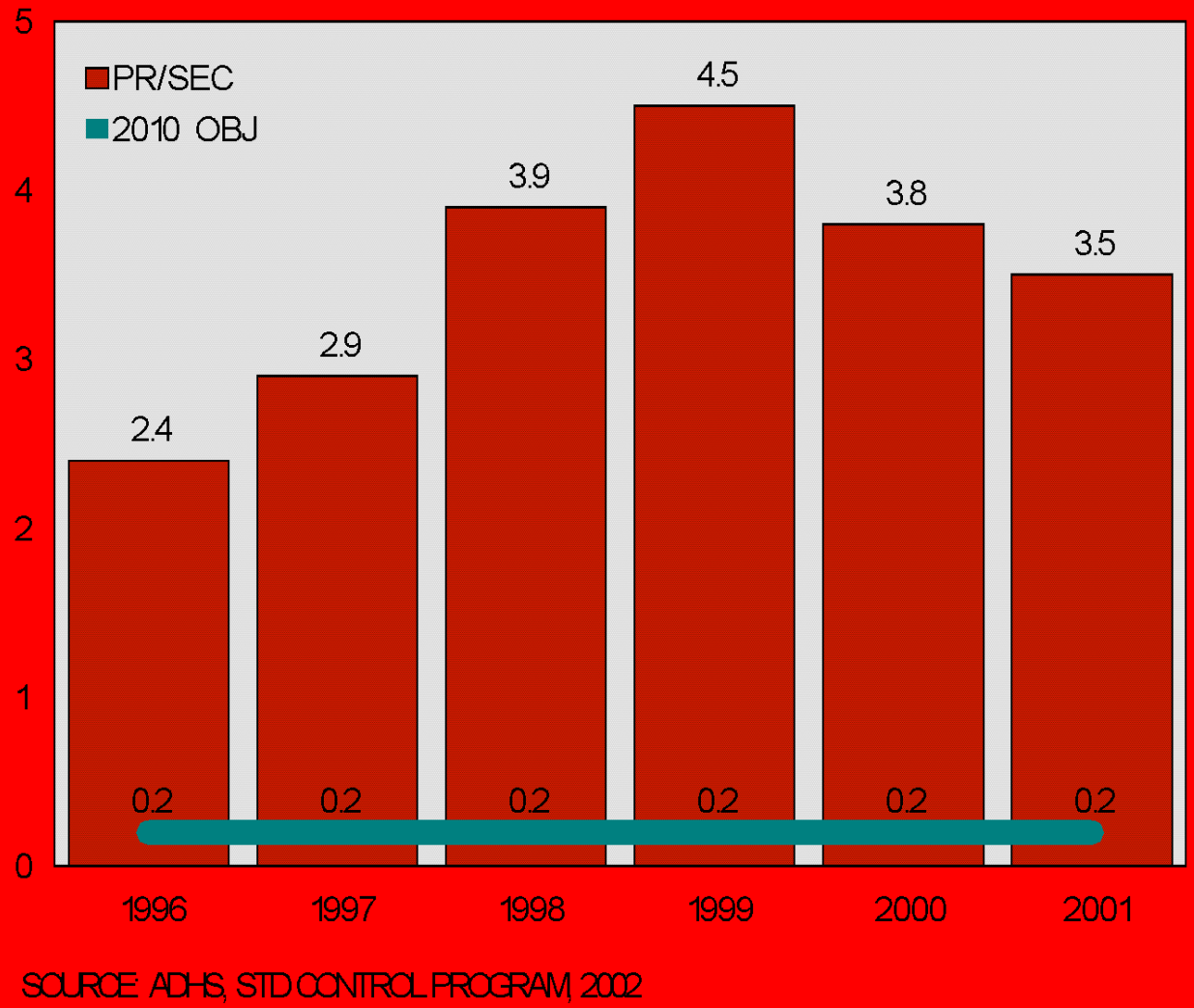
EARLY SYPHILIS MORBIDITY AND RATES BY AGE GROUPS AND SEX
ARIZONA 2001

AGE GROUP	CASES			RATES		
	MALES	FEMALE	TOTAL	MALES	FEMALES	TOTAL
0 - 4	1	0	1	0.5	0	0.3
5 - 9	0	0	0	0	0	0
10 - 14	1	2	3	0.5	1.1	0.8
15 - 19	12	22	34	6.3	12.4	9.2
20 - 24	43	55	98	22.4	32.2	27.0
25 - 29	40	31	71	20.5	17.3	19.0
30 - 34	22	21	43	11.4	11.9	11.6
35 - 39	42	30	72	21.0	15.6	18.4
40 - 44	37	26	63	19.7	13.8	16.8
45 - 54	27	16	43	8.8	5.0	6.8
55 - 64	12	0	12	6.4	0	2.7
65 +	6	0	6	2.1	0	0.9

RATES BASED ON U.S. CENSUS BUREAU 2000

PRIMARY/SECONDARY SYPHILIS RATES PER 100,000 POPULATION

AND HEALTHY PEOPLE YEAR 2010 US OBJECTIVE, ARIZONA 1996 - 2001



SOURCE: ADHS, STD CONTROL PROGRAM, 2002

I. TUBERCULOSIS

Tuberculosis in Arizona, 2001

Morbidity

There were 15,991 cases of active tuberculosis (TB) reported in the United States (U.S.) in 2001. Of these, 289 occurred in Arizona. While the U.S. has seen nine years of decline in the number of cases and case rates since 1993, this trend is not apparent in Arizona (Table 1 and Figure 1). The mean number of TB cases in Arizona from 1992 to 2001 was 269 with a minimum of 228 cases in 1993 and maximum of 317 cases in 1995. Due to population growth statewide, TB case rates declined from 6.7 in 1992 to 5.1 in 2000. However, in 2001 the TB case rate increased to 5.6 based on 2000 census data. It is anticipated that Arizona's 2001 rate will decline slightly when calculated using updated population denominators, as yet unavailable, due to population growth. While this rate is equal to the national average of 5.6 per 100,000 persons, it is higher than the Healthy People 2010 target rate of 1.0 per 100,000 persons (Figure 1). Only three states have met or exceeded the 2010 target goal. Arizona ranked 17 nationwide in TB case rates and 14 in number of cases in 2001. The majority of TB cases in Arizona in 2001 were of Hispanic or Latino ethnicity (45.7%), followed by White, non-Hispanic (25.3%), Native American (15.9%), Asian (8.3%) and Black, non-Hispanic (4.8%). The mean age was 43.9 years, the median age 44 years and 66.4% were male (Table 2).

Table 1. Tuberculosis Cases and Case Rates per 100,000 Population, Arizona and United States, 1992 - 2001

	Arizona			United States[a]	
Year[b]	Cases	Population[c]	Rate	Cases	Rate
1992	258	3,858,825	6.7	26,673	10.5
1993	228	3,946,975	5.8	25,287	9.8
1994	247	4,036,875	6.1	24,361	9.4
1995	317	4,184,723	7.6	22,860	8.7
1996	282	4,462,717	6.3	21,337	8.0
1997	296	4,595,379	6.4	19,851	7.4
1998	254	4,722,097	5.4	18,361	6.8
1999	262	4,924,350	5.3	17,531	6.4
2000	261	5,130,632	5.1	16,377	5.8
2001	289	5,130,632	5.6	15,991	5.6

[a]Data from U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and are available on their website: www.cdc.gov/nchstp/tb/

[b]Year reported reflects the year case was verified by Arizona Department of Health Services.

[c]Denominators for computing 2000 and 2001 rates are from the 2000 U.S. Census. Population projections from Arizona Department of Economic Security are used for years prior to 2000. The 2001 Arizona tuberculosis rate calculated by the Centers for Disease Control and Prevention of 5.4 differs from the rate in this report as population projections by Arizona Department of Economic Security are not yet available for 2001.

Figure 1. Tuberculosis Case Rates per 100,000 Population, Arizona and United States, 1992 - 2001

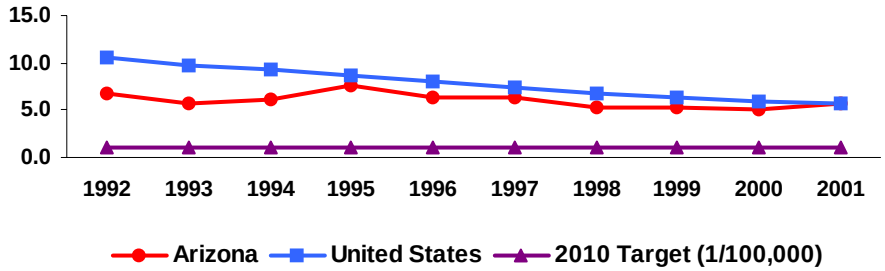


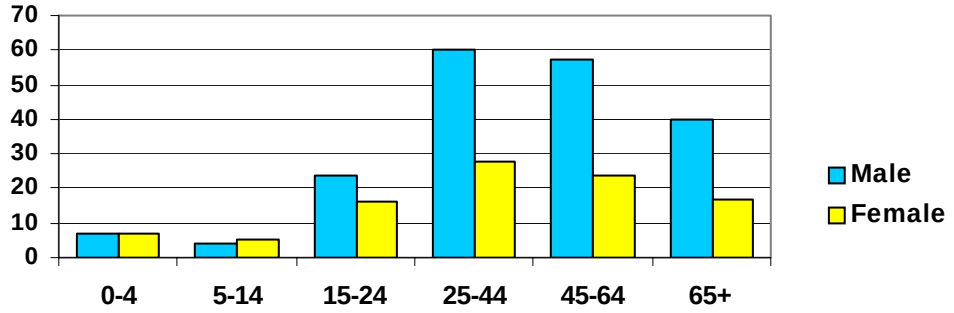
Table 2. Tuberculosis Cases by Ethnicity, Gender and Age Group, Arizona, 2001

	Age Group						Total by Ethnicity		
	< 5	5-14	15-24	25-44	45-64	65+	No.	(%)	Rate[a,b]
White, Not Hispanic									
Male	0	1	2	7	19	20	49		
Female	0	0	5	6	8	5	24		
Total	0	1	7	13	27	25	73	(25.3)	2.2
Black, Not Hispanic									
Male	0	0	3	3	3	1	10		
Female	0	1	1	2	0	0	4		
Total	0	1	4	5	3	1	14	(4.8)	9.3
Hispanic or Latino[c]									
Male	5	3	17	31	23	8	87		
Female	7	4	8	12	7	7	45		
Total	12	7	25	43	30	15	132	(45.7)	10.2
Native American[d]									
Male	2	0	0	12	7	11	32		
Female	0	0	1	2	7	4	14		
Total	2	0	1	14	14	15	46	(15.9)	19.7
Asian[e]									
Male	0	0	2	7	5	0	14		
Female	0	0	1	6	2	1	10		
Total	0	0	3	13	7	1	24	(8.3)	25.3
Total by Gender									
Male	7	4	24	60	57	40	192	(66.4)	7.5
Female	7	5	16	28	24	17	97	(33.6)	3.8
Total by Age Group									
No.	14	9	40	88	81	57	289		
(%)	(4.8)	(3.1)	(13.8)	(30.4)	(28.0)	(19.7)		(100.0)	
Rate[a,b]	3.7	1.2	5.5	5.8	7.6	8.5			5.6

[a]Rate per 100,000 population.
[b]Denominators for computing rates are from the 2000 U.S. Census in order to have population breakdowns by age group and gender.
[c]Persons of Hispanic or Latino origin may be of any race.
[d]Includes American Indians and Native Alaskans.
[e]Includes Native Hawaiians and Other Pacific Islanders.

The majority of male (31.3%) and female (28.9%) cases were in the 25-44 year age group (Figure 2), followed by the 45-64 year group (29.7% and 24.7% respectively), greater than 65 years (20.8% and 17.5%), 15-24 years (12.5% and 16.5%), less than 5 years (3.6% and 7.2%) and 5-14 years (2.1% and 5.2%). There were almost twice as many male cases (192) as female cases (97). The mean age of male cases was 45.8 years and the mean age of female cases was 40.2 years.

Figure 2. Number of Tuberculosis Cases by Age in Years and Gender, Arizona, 2001



Four of Arizona's 15 counties accounted for 85% of the state's TB cases. Maricopa County, which includes Phoenix, the sixth largest city and the fourteenth largest metropolitan area in the U.S., led the state with 163 cases (56.4%). Pima County, a U.S.-Mexico border county that includes Tucson, Arizona's second largest urban area, was second with 45 cases (15.6%). Yuma County, also on the U.S.-Mexico border, had 22 cases (7.6%). Apache County, a largely rural area, had 15 cases (5.2%), three times the 5 cases reported in 2000. Pinal County, which contains Arizona's two largest state prison facilities, three private prisons, an INS processing center, and a county jail had 11 cases (3.8%); of these, 9 were diagnosed in correctional facilities. Three of the remaining ten counties, Greenlee, La Paz and Yavapai, reported no TB cases in 2001 (Figure 3).

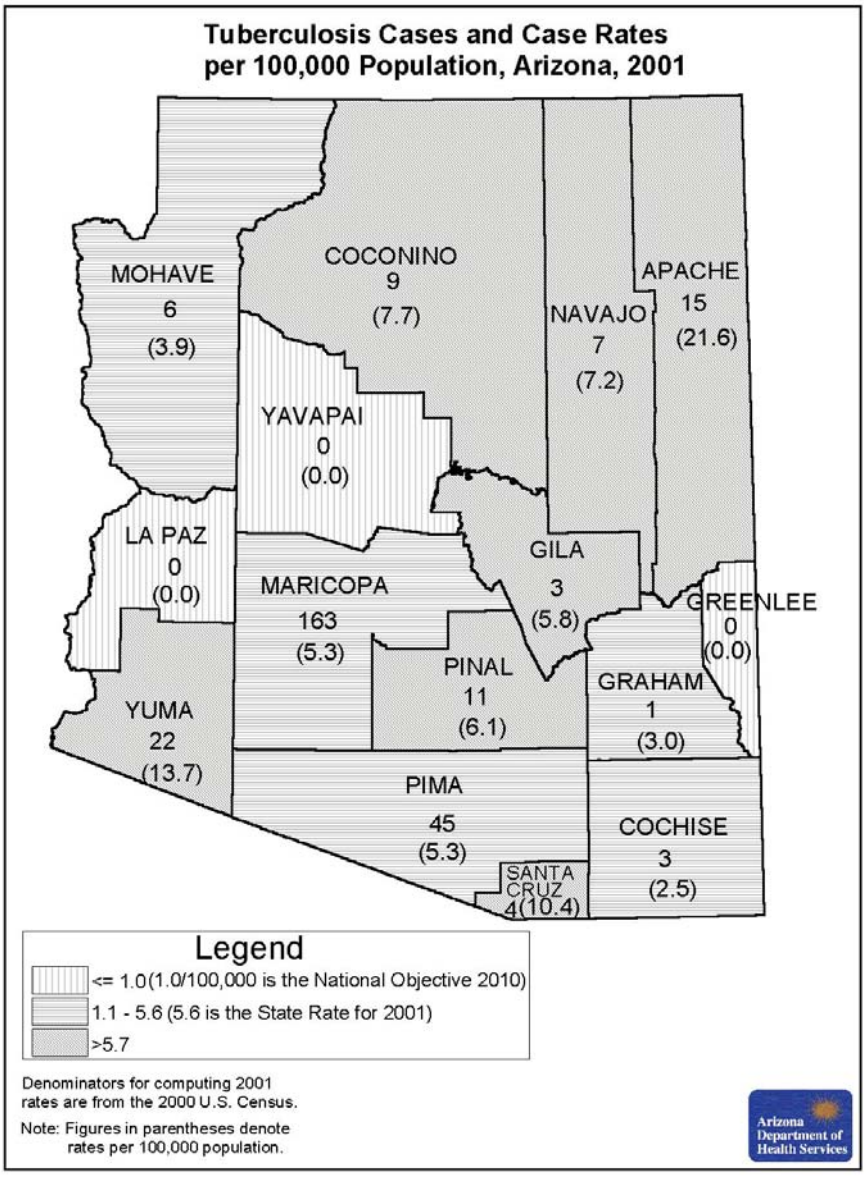


Figure 3. Tuberculosis Cases and Case Rates per 100,000 (in parentheses) by County, Arizona, 2001.

Yuma County had the highest 5-year median rate (15.6 per 100,000 population) of the 15 counties. Greenlee County was second with a 5-year median rate of 11.3 per 100,000 population. However, this rate is misleading due to a small population (8,547 persons). Because of small population sizes in Greenlee and other rural counties, an increase of only one or two cases will result in dramatic rate increases. This accounts for some of the rate fluctuations from year to year in counties with small populations (Figure 4).

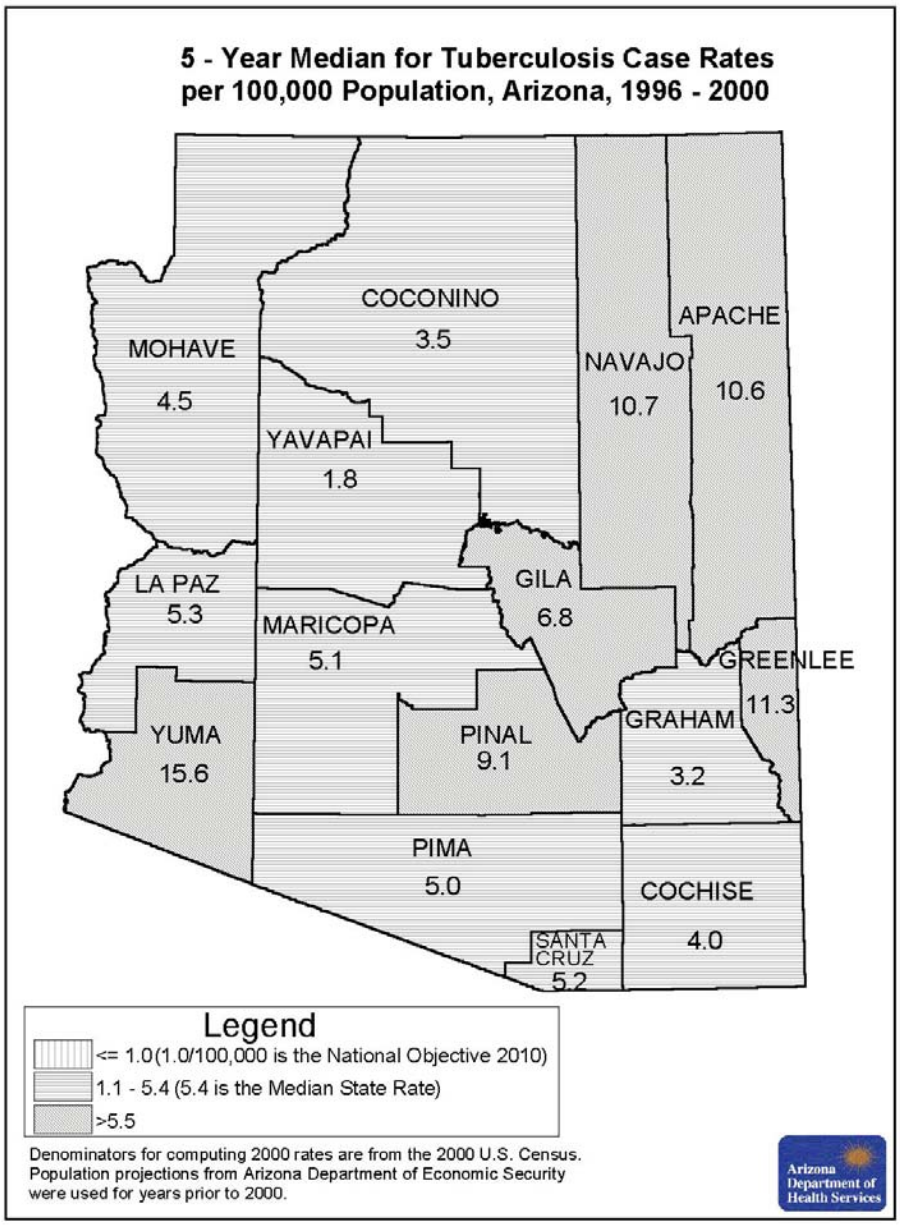


Figure 4. Five-Year Median Tuberculosis Case Rates per 100,000 by County, Arizona, 1996-2000

Risk Factors

Arizona has observed an increasing proportion of cases among the foreign-born, the same trend as seen nationally. In 2000, 56.7% of Arizona cases were born outside the U.S., marking the first year that foreign-born cases outnumbered those born in the U.S. (Table 3). In 2001, almost half of Arizona cases were born outside the U.S. and its territories, 47.4% versus 52.6% U.S.-born (Figure 5). The greatest proportion (60.7%) of foreign-born persons with TB in Arizona in 2001 were born in Mexico (n=82).

Other reported countries of origin include the Philippines, 6.7% (n=9), Vietnam, 4.4% (n=6), India, 3.7% (n=5) and El Salvador, 2.2% (n=3). The remaining 30 cases are from 23 other countries with 2 cases or less per country (Figure 6).

Table 3. Tuberculosis Cases by Selected Risk Factors, Arizona, 1996 - 2001

	1996		1997		1998		1999		2000		**2001**	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	**No.**	**(%)**
Occupation												
Correctional Facility Worker	0	(0.0)	0	(0.0)	1	(0.4)	0	(0.0)	0	(0.0)	**0**	**(0.0)**
Health Care Worker	2	(0.7)	3	(1.0)	3	(1.2)	1	(0.4)	6	(2.3)	**5**	**(1.7)**
Migrant Farm Worker	9	(3.2)	2	(0.7)	5	(2.0)	6	(2.3)	9	(3.4)	**6**	**(2.1)**
Reported Behaviors												
Injecting Drug Use[a]	12	(4.3)	11	(3.7)	6	(2.4)	10	(3.8)	11	(4.2)	**11**	**(3.8)**
Non-injecting Drug Use[a]	13	(4.6)	15	(5.1)	10	(3.9)	20	(7.6)	20	(7.7)	**21**	**(7.3)**
Excess Alcohol Use[a]	37	(13.1)	48	(16.2)	39	(15.4)	55	(21.0)	46	(17.6)	**59**	**(20.4)**
Type of Residence												
Long Term Care Facility[b]	14	(5.0)	12	(4.1)	4	(1.6)	7	(2.7)	7	(2.7)	**14**	**(4.8)**
Correctional Facility[b]	18	(6.4)	23	(7.8)	14	(5.5)	18	(6.9)	21	(8.0)	**16**	**(5.5)**
Homeless[a]	35	(12.4)	29	(9.8)	29	(11.4)	36	(13.7)	38	(14.6)	**44**	**(15.2)**
Country of Birth												
Foreign Born[c]	108	(38.3)	111	(37.5)	102	(40.2)	111	(42.4)	148	(56.7)	**137**	**(47.4)**
Underlying Disease												
HIV infection, All Ages[d]	15	(5.3)	12	(4.1)	14	(5.5)	16	(6.1)	18	(6.9)	**12**	**(4.2)**
HIV infection, 25-44 Years Old[d]	11	(12.9)	10	(10.4)	11	(15.9)	10	(10.1)	13	(14.3)	**8**	**(9.1)**
Total Cases	282		296		254		262		261		**289**	

[a]Within one year prior to diagnosis of tuberculosis.
[b]Residence at time of diagnosis.
[c]Includes persons born outside the United States and its territories.
[d]Tuberculosis cases with a reported positive HIV test result. The percent positive represents HIV co-infection among all verified TB cases, including those not tested for HIV infection.

Figure 5. Foreign-Born TB Cases, Arizona, 1992 - 2001

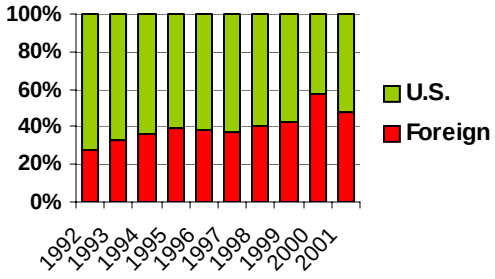
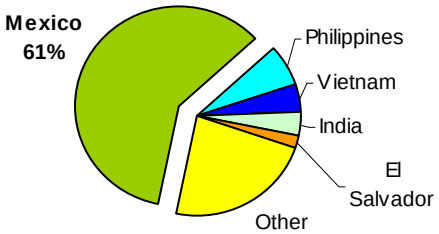


Figure 6. Reported Country of Birth, Arizona TB Cases, 2001



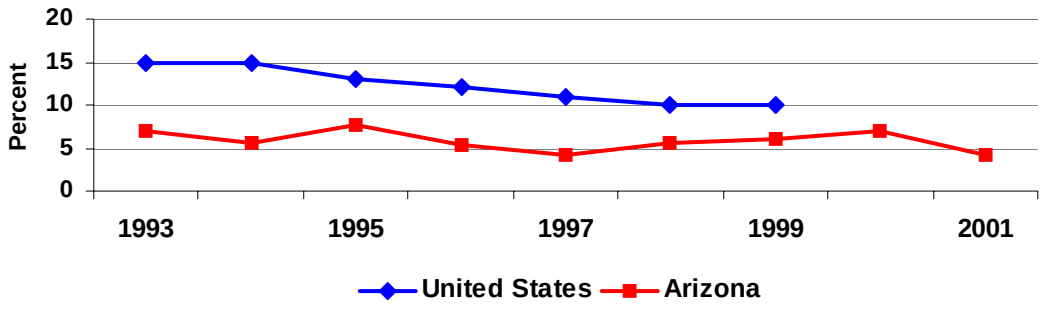
Excess alcohol use has been increasingly reported among TB cases in Arizona, up from 13.1% in 1996 to 20.4% in 2001. In 2000, excess alcohol use was reported in 17.6% of Arizona cases, slightly higher than the national average of 15% for that year.

Homelessness is another important risk factor for TB in Arizona with the proportion of TB cases among homeless persons in 2000 2.4 times higher than the national average of 6.1%. The proportion of TB cases among homeless persons in Arizona increased in 2001 to 15.2%.

In 2001, the proportion of TB cases diagnosed in Arizona correctional facilities was 5.5% (n=16), down slightly from 8.0% (n=21) of reported cases in 2000. In contrast, only 3.6% of TB cases nationally were reported as diagnosed in correctional facilities in 2000. The greatest challenge among the correctional facility cases in Arizona has been in providing adequate treatment for Immigration and Naturalization Service (INS) detainees diagnosed with TB while in custody (n=11 in 2001 versus n=15 in 2000). Most detainees are deported prior to completion of treatment and may even be deported prior to culture results. In these cases, the detainee is unaware of their diagnosis of TB. In 2000, Arizona's TB Control Program began actively enrolling every TB suspect who is in INS custody in the bi-national TB referral program, CURE-TB, offered by the San Diego TB Control Program. This enables detainees and their providers access to their medical information following deportation.

Nationally, the proportion of TB cases co-infected with HIV has been declining, from 15% in 1993 to 10% in 1999. This trend was not apparent in Arizona during this time period. However, the proportion of TB cases co-infected with HIV decreased from 7% in 2000 to 4% in 2001 (Figure 7). During the years 1993 to 1999 (the last year for which national data is available), the proportion of TB cases for which HIV results are known has increased significantly. This increase has been much greater in Arizona (from 18% to 60%) than nationally (30% to 48%). In 2001, HIV test results are known for 63% of TB cases in Arizona among all age groups and for 81% of those in the 25-44 year age group, considered to be at highest risk for HIV co-infection (Table 4).

Figure 7. HIV Coinfection in Persons Reported with TB, U.S. and Arizona, 1993-2001



Note: Based on reported HIV status among all TB cases, including those not tested.

Table 4. Proportion of Reported Tuberculosis Cases with HIV Test Results and HIV Coinfection by Age Group, U.S. and Arizona, 1993-2001.

Year	25-44 Years Old				All Ages			
	HIV Test Results Known[a]		HIV Positive[b]		HIV Test Results Known[a]		HIV Positive[b]	
	U.S. (%)	AZ (%)	U.S. (%)	AZ (%)	U.S. (%)	AZ (%)	U.S. (%)	AZ (%)
1993	(46)	(38)	(29)	(19)	(30)	(18)	(15)	(7)
1994	(49)	(28)	(29)	(15)	(33)	(16)	(15)	(6)
1995	(52)	(53)	(26)	(19)	(36)	(33)	(13)	(8)
1996	(57)	(65)	(25)	(13)	(41)	(44)	(12)	(5)
1997	(60)	(69)	(21)	(10)	(44)	(45)	(11)	(4)
1998	(61)	(77)	(20)	(16)	(45)	(47)	(10)	(6)
1999	(62)	(84)	(19)	(10)	(48)	(60)	(10)	(6)
2000		(74)		(14)		(62)		(7)
2001		(81)		(9)		(63)		(4)

[a]Rhode Island reported HIV test results in 1998 and 1999. California reporting of HIV status is incomplete and only includes persons also reported with AIDS. Includes cases with positive, negative and indeterminate HIV test results.

[b]Based on reported HIV positive status among all reported tuberculosis cases, including those not tested.

Drug susceptibility

Initial drug susceptibility testing was obtained on 98% (223/228) of culture-proven TB cases in Arizona in 2001. Overall, drug resistance patterns have not changed significantly in recent years. All multi-drug resistant cases since 1998 have occurred among foreign-born persons (Table 5).

Table 5. Drug Resistance Among U.S.-born and Foreign-born Tuberculosis Cases, Arizona, 1996-2001

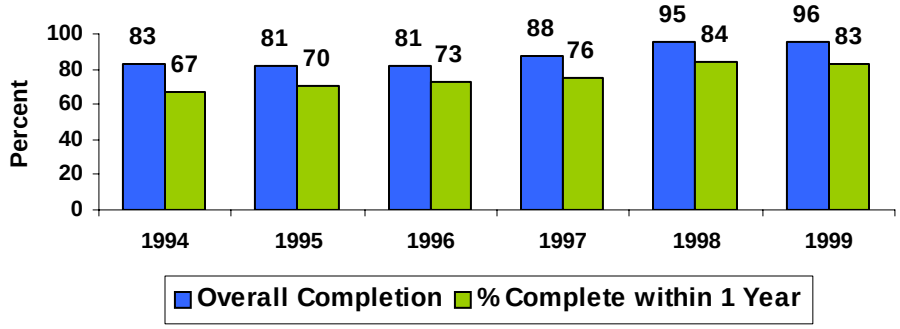
Year	INH Resistance[a,b]						Multi-Drug Resistant[a,c]						Other Drug Resistance[a,d]					
	U.S.-born		Foreign-born		Total		U.S.-born		Foreign-born		Total		U.S.-born		Foreign-born		Total	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
1996	1	(1)	5	(6)	6	(3)	2	(1)	5	(6)	7	(3)	19	(13)	4	(5)	23	(10)
1997	8	(6)	10	(12)	18	(8)	1	(1)	1	(1)	2	(1)	17	(12)	5	(6)	22	(10)
1998	6	(5)	4	(5)	10	(5)	0	(0)	1	(1)	1	(0)	10	(8)	4	(5)	14	(7)
1999	2	(2)	4	(4)	6	(3)	0	(0)	2	(2)	2	(1)	18	(14)	9	(9)	27	(12)
2000	2	(2)	13	(10)	15	(7)	0	(0)	2	(2)	2	(1)	10	(11)	9	(7)	19	(9)
2001	4	(3)	5	(5)	9	(4)	0	(0)	3	(3)	3	(1)	9	(8)	10	(10)	19	(9)

[a]More than 95% of isolates had susceptibility testing performed.
[b]Resistance to at least isoniazid without rifampin resistance.
[c]Resistance to at least isoniazid and rifampin (multi-drug resistance).
[d]Other drug resistance without isoniazid resistance.

Completion of Tuberculosis Therapy

While completion of therapy data is not available for 2000 and 2001, there has been a consistent trend of increasing rates of therapy completion in Arizona from 1994 to 1999. In cases diagnosed in 1994, 83% completed therapy and in cases diagnosed in 1998, 95% completed therapy. Nationally, the overall completion of therapy rate was 90.4% in 1998 (the last year for which national data is available). In 1999, Arizona had a 96% overall completion of therapy rate. In Arizona, rates for completing therapy within one year increased from 67% in 1994 to 83% in 1999, still short of the national objective of 90% (Figure 8). In 1998, 83% of Arizona cases completed therapy within one year versus 79.1% nationally.

Figure 8. Completion of Tuberculosis Therapy, Arizona, 1994 - 1999

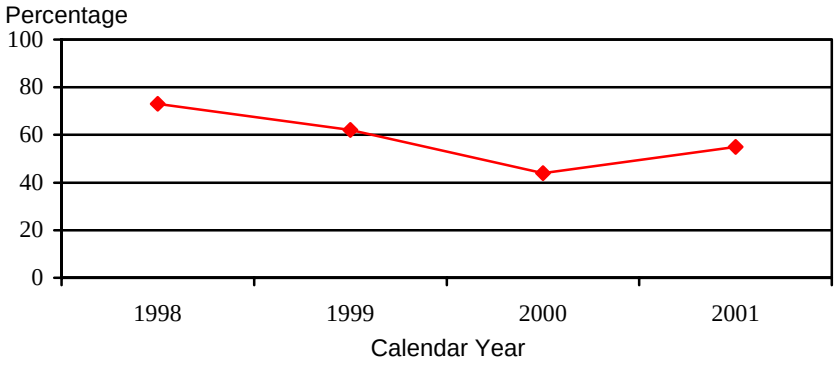


Note: Completed in one year or less excludes persons resistant to RIF and children <15 years with meningeal, bone or joint or miliary disease

Contacts

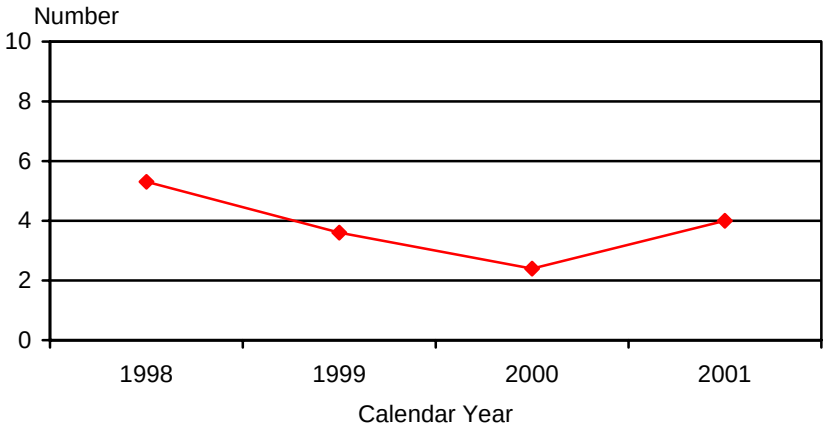
Provisionally, contacts were reported for 55% (134/244) of pulmonary TB cases in Arizona in 2001 (Figure 9). The decrease in reported contacts of pulmonary TB cases in 2000 may be related to the introduction of new reporting forms and categories by the Centers for Disease Control and Prevention (CDC) to reporting sources. In addition, a new computerized TB Prevention Registry that utilized the new reporting format was introduced to local health departments in 2000.

Figure 9. Proportion of Counted Pulmonary TB Cases with Contacts Identified, Arizona, 1998 - 2001



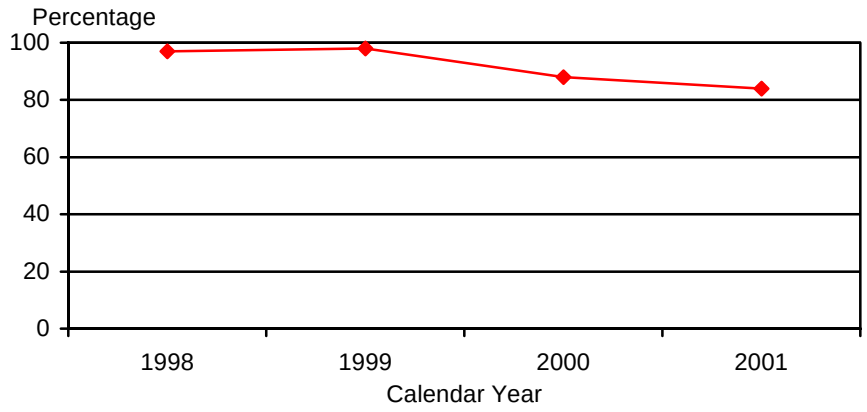
In 2001, the average number of contacts identified per pulmonary TB case in Arizona was 4.0 (964/244). This is an increase from an average of 2.4 (556/236) contacts per pulmonary TB case in 2000 (Figure 10).

Figure 10. Average Number of Contacts Identified per Pulmonary TB Case, Arizona, 1998 - 2001



Nineteen percent (154/813) of contacts who were evaluated (had a positive skin test and a chest X-ray or had a past positive skin test and were screened for TB symptoms) were found to have newly recognized latent TB infections and 0.2 percent (2/813) were found to have newly recognized active TB disease. Eighty-four percent (813/964) of contacts completed the evaluation process, a decrease from 88% (491/556) in 2000 (Figure 11).

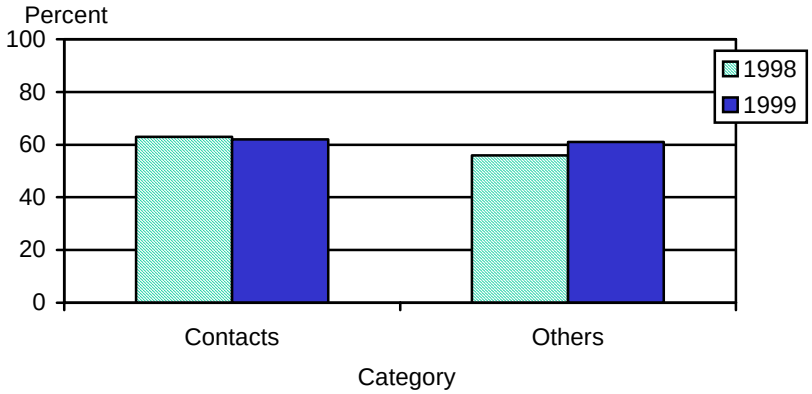
Figure 11. Proportion of Contacts to Pulmonary TB Cases that Were Evaluated, Arizona, 1998 - 2001



Completion of Therapy for Latent TB Infection

In 1999, the last year for which Arizona data is complete, 62% (114/185) of contacts to TB cases and 61% (1694/2793) of others (who were not contacts to TB cases) with positive skin tests who started therapy for latent TB infection completed therapy (Figure 12). Both are below the National Goals (85% and 75%, respectively).

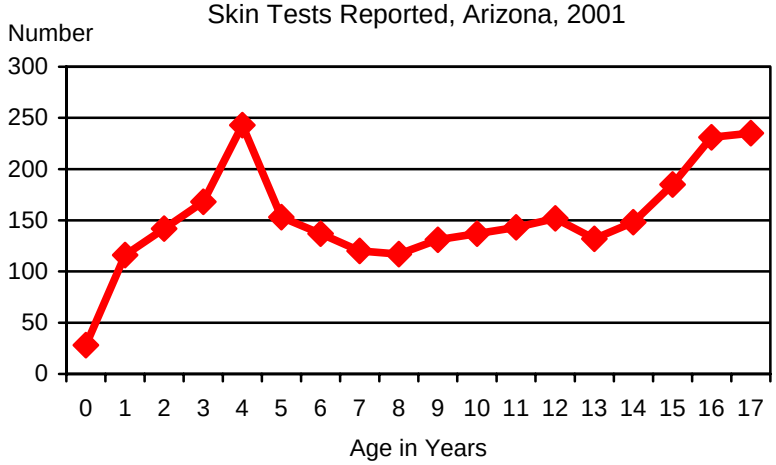
Figure 12. Completion of Therapy for Latent TB Infection, Arizona, 1998 -1999



TB Skin Testing in Children

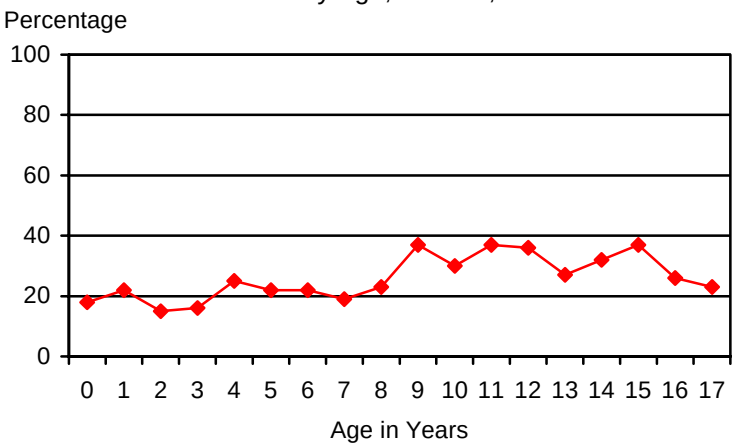
Provisionally, completed skin tests were reported for 2,718 children (under 18 years of age) in Arizona in 2001. Forty-five percent (1211/2718) were tested as part of local health department skin test screening activities; 17% (470/2718) as part of immigration evaluation; and 16% (425/2718) as part of contact investigations. Data show peaks in skin testing at age 4 years (n=243) and age 17 years (n=235) (Figure 13). It is unclear why there are a greater number of completed skin tests at these ages; it may be due to school entry and volunteer or work requirements.

Figure 13. Number of Children with Completed TB Skin Tests Reported, Arizona, 2001



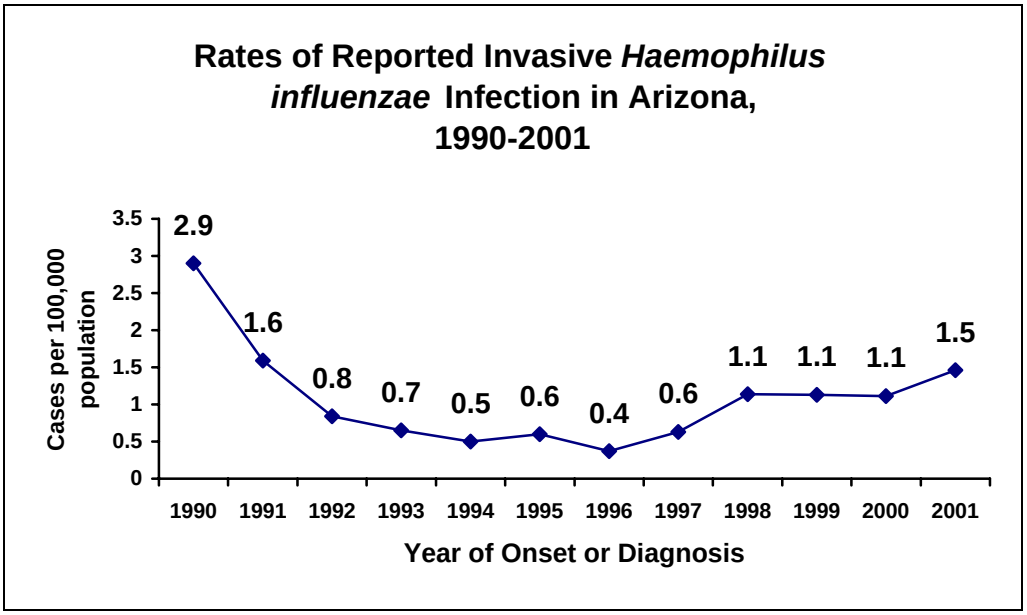
Overall, 26% (716/2718) of children who completed skin testing had positive TB skin tests reported. Of children who completed testing as part of local health department screening activities, 32% (384/1211) had positive TB skin tests. Of children who completed testing during immigration evaluation, 23% (108/470) had positive TB skin tests. Of children who completed testing as part of a contact investigation, 11% (48/425) had positive TB skin tests. Skin tests were more likely to have positive results among children age 9 years or older versus children age 8 years or less (Figure 14).

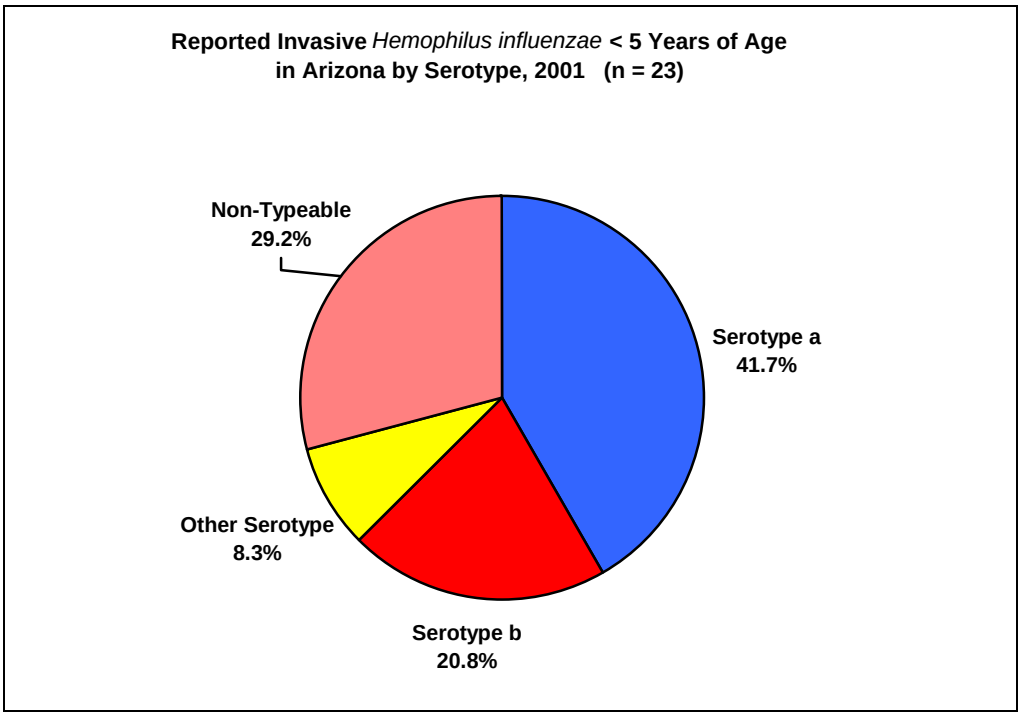
Figure 14. Proportion of Children With Positive TB Skin Tests by Age, Arizona, 2001

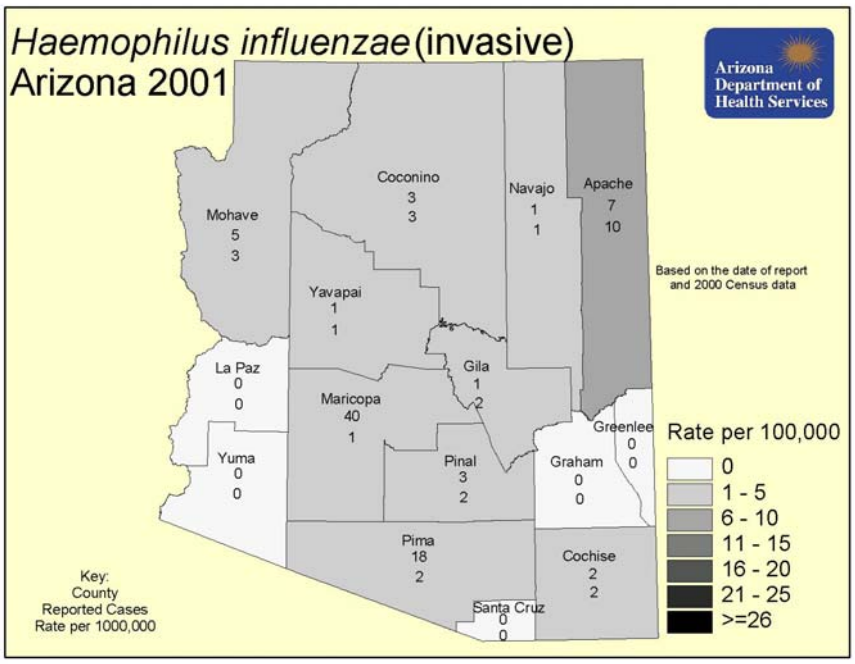


The *Tuberculosis Surveillance Report* is published annually by the Arizona Department of Health Services, TB Control Section. All data are provisional. Report finalized 4/18/2002 based on available data as of 3/11/2002.

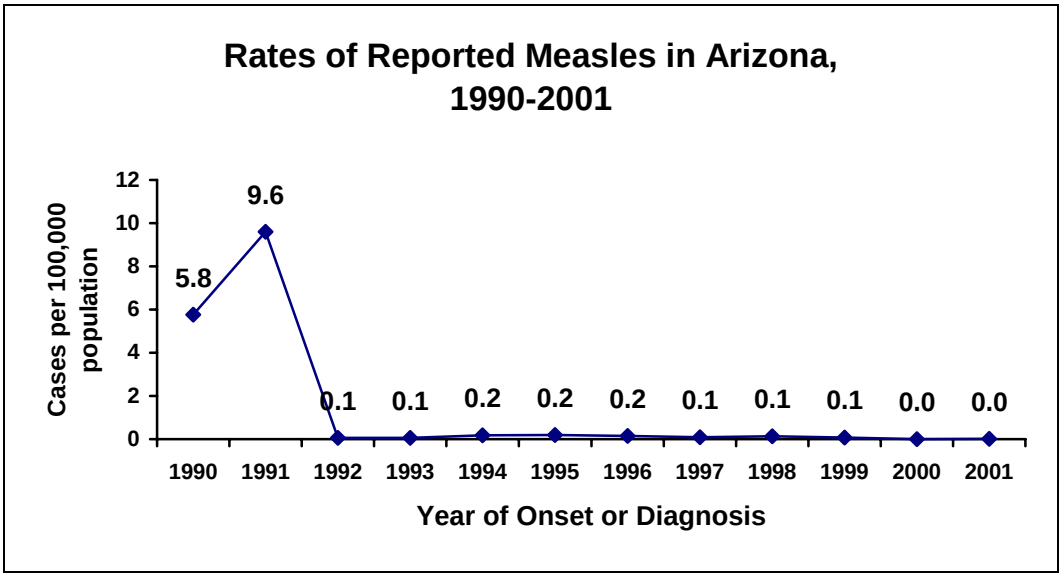
J. VACCINE-PREVENTABLE DISEASES


Rates of Reported Invasive Haemophilus influenzae Infection in Arizona, 1990-2001
Cases per 100,000 population
3.5
3
2.5
2
1.5
1
0.5
0
2.9
1.6
0.8
0.7
0.5
0.6
0.4
0.6
1.1
1.1
1.1
1.5
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
Year of Onset or Diagnosis

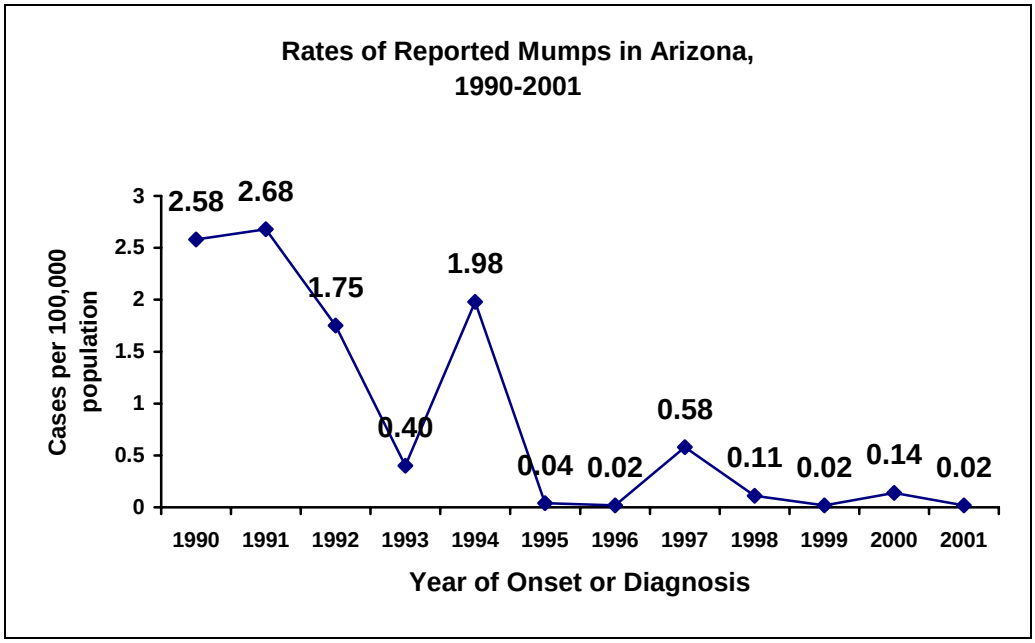

Reported Invasive Hemophilus influenzae < 5 Years of Age in Arizona by Serotype, 2001 (n = 23)
Non-Typeable 29.2%
Serotype a 41.7%
Other Serotype 8.3%
Serotype b 20.8%



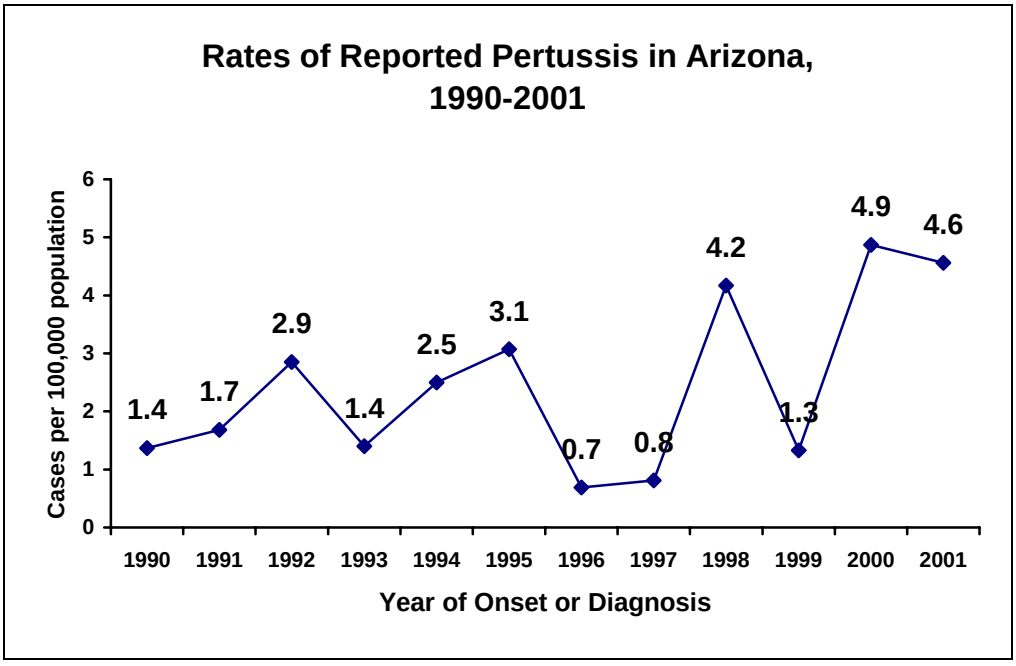
Current rates of invasive disease caused by *Haemophilus influenzae* reflect all serotypes and ages. There were 82 cases (1.6 per 100,000 population) of invasive *H. influenzae* disease reported in 2001, of which three were five of *H. influenzae* type b in a child under five (first case was six months old with no vaccine history, second case was one year old with no vaccine history, third case was one year old with no vaccine history, fourth case was 2 years old with no vaccine history, and the fifth case was 3 years old with unknown vaccine history). The rates of invasive disease due to *H. influenzae* have decreased during the first half of 1990's probably reflecting increased use of vaccines for *H. influenzae*; however, they subsequently increased and have stabilized for the past three years. [Rates for serotypes other than serotype b have increased, particularly serotype a (see graphic – pie chart)]. Nationally, rates have been relatively stable at 0.44 per 100,000 in 1994 to 0.48 in 1999 (note to Ken/Victorio – the 2000 surveillance summary is not up on CDC's website yet – is there any way to access more recent national numbers/rates?).

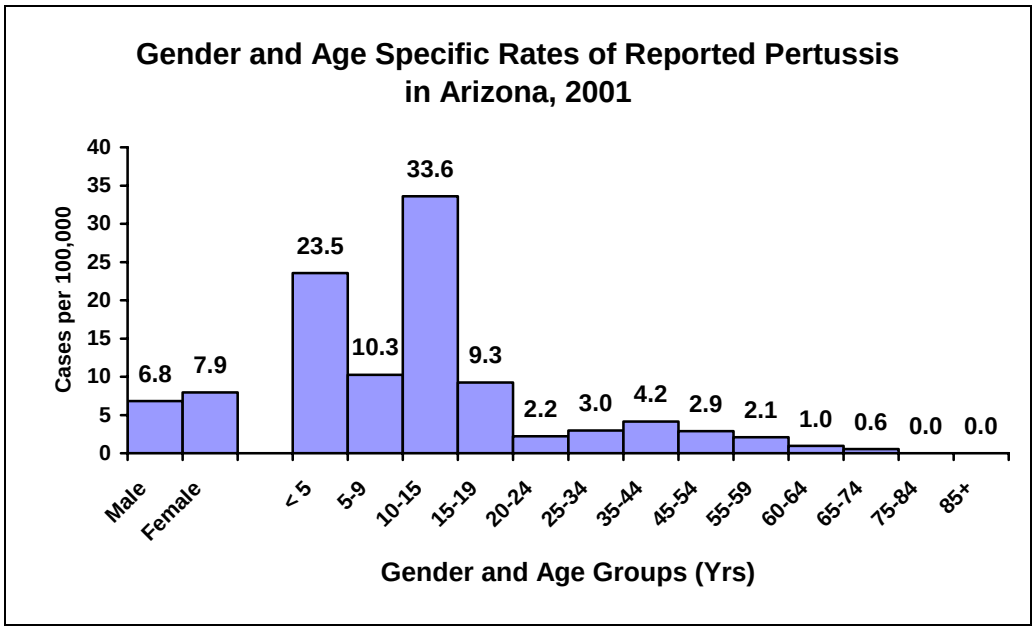


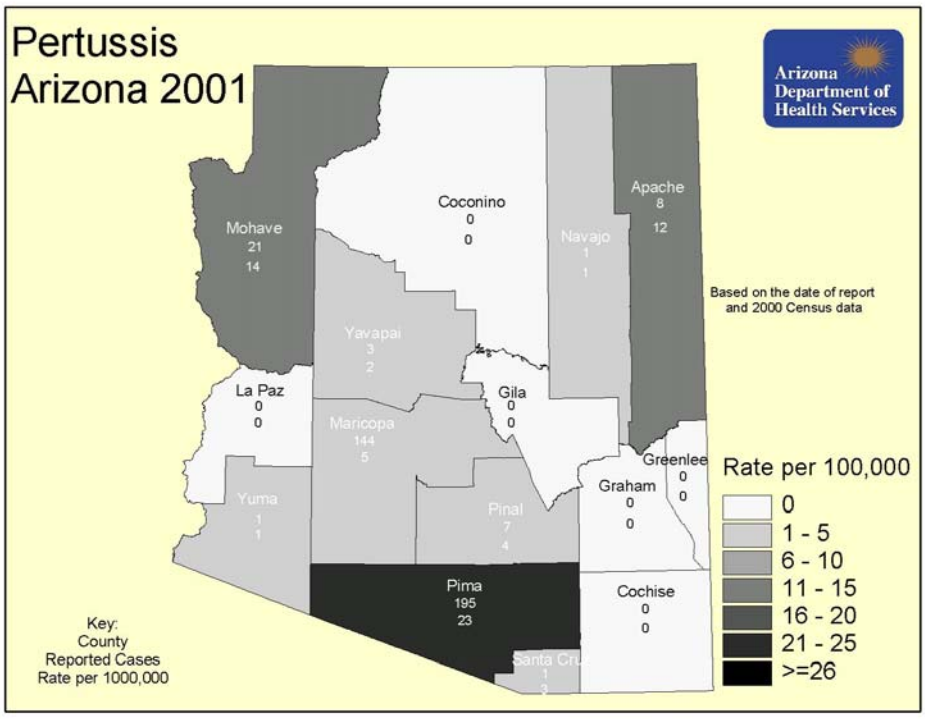
One case of measles was reported in 2001 in a 24 year-old female with no history of vaccination. This case attended a theme park in another state during her incubation period, and was linked to a co-primary case in another state that visited the same theme park on the same day (the index case was never identified). In 1990-1991, there was a measles resurgence primarily due to low vaccination coverages. Measles cases declined rapidly following this resurgence, due primarily to intensive efforts to vaccinate preschool-aged children. Since 1993, fewer than 500 cases were reported for most years, and most cases are imported from other countries or linked to imported cases. The available data strongly suggest that measles transmission has been interrupted in the United States.



In 2001, there were 2 reported cases of mumps. Both of these cases occurred in unvaccinated adults. In mid-to-late 1990's, there were two mumps outbreaks that occurred among school–aged children in rural communities. In 1998, the CSTE mumps case definition changed (became more specific).


Rates of Reported Pertussis in Arizona, 1990-2001
Cases per 100,000 population
0
1
2
3
4
5
6
1.4
1.7
2.9
1.4
2.5
3.1
0.7
0.8
4.2
1.3
4.9
4.6
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
Year of Onset or Diagnosis


Gender and Age Specific Rates of Reported Pertussis in Arizona, 2001
Cases per 100,000
0
5
10
15
20
25
30
35
40
6.8
7.9
23.5
10.3
33.6
9.3
2.2
3.0
4.2
2.9
2.1
1.0
0.6
0.0
0.0
Male
Female
< 5
5-9
10-15
15-19
20-24
25-34
35-44
45-54
55-59
60-64
65-74
75-84
85+
Gender and Age Groups (Yrs)



There were 383 confirmed cases of pertussis reported in 2001, reflecting approximately 7.46 cases per 100,000 population. Outbreaks among adolescents in Pima County and among children in an isolated and under immunized community in Mohave County accounted for the peak in 2001. These same counties had outbreaks in 1998 and 2000. Other peak years were 1992 and 1995. National rates have fluctuated from 1.84 per 100,000 in 1990 to 2.67 in 1999; during the same period of time Arizona rates were 5 times above the national rates and 5 times below them.

III. TABLES

A. CASE RATES BY COUNTY, 1990-2001

SEXUALLY TRANSMITTED DISEASES IN ARIZONA
CASES AND RATES PER 100,000 POPULATION BY COUNTY
YEAR 2001

County	SYPHILIS						GONORRHEA		CHLAMYDIA		HERPES	
	P / S		E L		CONGENITAL							
	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates
Apache	3	4.4	4	5.8	1	277.8	66	95.7	404	585.5	28	40.6
Cochise	-	-	1	0.9	-	-	15	12.7	144	122.0	7	5.9
Coconino	-	-	3	2.6	-	-	36	31.0	403	347.4	20	17.2
Gila	-	-	-	-	-	-	9	17.7	115	225.5	5	10.0
Graham	3	9.1	-	-	-	-	5	15.2	73	221.2	4	11.1
Greenlee	-	-	-	-	-	-	-	-	9	100.0	1	11.1
La Paz	-	-	-	-	-	-	2	10.0	27	135.0	2	10.0
Maricopa	148	4.8	244	7.9	28	57.1	2830	92.1	8963	291.8	817	26.6
Mohave	-	-	1	0.7	-	-	14	9.0	161	103.9	11	7.1
Navajo	4	4.1	2	2.1	1	47.6	86	88.7	469	483.5	17	17.5
Pima	22	2.6	8	1.0	-	-	749	88.7	2699	319.8	208	24.6
Pinal	-	-	-	-	1	40.0	63	35.0	368	204.4	21	11.7
Santa Cruz	-	-	1	2.6	-	-	10	26.3	70	184.2	1	
Yavapai	-	-	-	-	-	-	15	8.9	150	89.3	10	6.0
Yuma	-	-	3	1.9	1	35.7	23	14.4	301	188.1	21	13.1
Arizona	180	3.5	267	5.2	32	38.6	3923	76.5	14357	279.8	1173	22.9

RATES BASED ON U.S. CENSUS BUREAU 2000
P/S=PRIMARY AND SECONDARY SYPHILIS
E L=EARLY LATENT SYPHILIS

EARLY SYPHILIS CASE RATES PER 100,000 RANKING BY RATES BY COUNTIES, ARIZONA 2001

RANK	REPORTING COUNTY	E. S. CASES	RATES
1	MARICOPA	392	12.8
2	APACHE	7	10.3
3	GRAHAM	3	9.1
4	NAVAJO	6	6.2
5	PIMA	30	3.6
6	COCONINO	3	2.6
7	SANTA CRUZ	1	2.6
8	YUMA	3	1.9
9	COCHISE	1	0.9
10	MOHAVE	1	0.7
11	GILA	0	0
12	GREENLEE	0	0
13	LA PAZ	0	0
14	PINAL	0	0
15	YAVAPAI	0	0

RATES BASED ON U.S. CENSUS BUREAU 2000

*Reported Rates in Arizona by Year of Report, 2001**

Disease: *AMEBIASIS*

County	***199***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
APACHE	1.6											
COCHISE			1.5						0.7			
COCONINO	0.9	0.9	1.8			1.6						1.7
GILA		6.1					1.7					
GRAHAM						2.6	5.1					
GREENLEE								7.2				
LA PAZ											5.1	
MARICOPA	0.4	2	3	2.1	1.6	1.7	1.3	0.5	0.1	0.3	0.7	0.5
MOHAVE	1					0.8	0.7		0.7			
NAVAJO					1.1	1						
PIMA	1	0.2	0.7	0.8	0.9	0.5	0.6	0.3	0.5	0.5	0.8	0.4
PINAL			0.6	1.2	1.2	1.1	1.1					
SANTA CRUZ		7.2	6.9	3.3	1.6	23.2	22.9	13.4	10.1	5.6	13	7.8
YAVAPAI		4.2	0.8	2.3	1.5	1.4					0.6	1.8
YUMA		0.6										0.6
STATE	0.5	1.5	2.1	1.5	1.2	1.6	1.2	0.5	0.3	0.4	0.7	0.6

Disease: *BOTULISM*

County	***199***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
APACHE							1.4					
MARICOPA						0.1		0				0
PIMA			0.1									
STATE			0			0	0	0				0

Disease: *BOTULISM,INFANT*

County	***199***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
MARICOPA				0				0.1			0	0
MOHAVE												0.6
STATE				0				0			0	0

Disease: *BRUCELLOSIS*

County	***199***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
COCONINO					0.8							
MARICOPA					0.3	0.1	0	0.1	0		0.1	0.1

PIMA			0.1	0.2			0.1				0.1
SANTA CRUZ				1.6							
YUMA			0.6	2.9	0.6						0.6
STATE			0	0.3	0.1	0	0.1	0		0	0.1

Disease: *CAMPYLOBACTERIOSIS*

County	***199***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
APACHE	1.6		3.1		8.8	59.4	77.9	79.6	61	86	67.7	47.5
COCHISE	1.6	6.2	3		0.7		2.7		1.3	4.6	5.9	6.8
COCONINO	9.4	12.8	4.4		12.5	10.6	16	35.3	18.7	26.4	41.3	46.4
GILA	10.4	8.2	4		5.6	3.6	1.7	13.6	16.8	11.6	5.8	9.7
GRAHAM		2.9				2.6	5.1		2.4	9.6	9	11.9
GREENLEE						22.3					11.7	
LA PAZ		5.9			11.6				5.4	21.7	5.1	15.2
MARICOPA	15	16.6	15.6	12.6	9	9.8	8.9	7.5	6.3	8	9.5	10.4
MOHAVE	1	0.9	3.6	3.4	2.4	1.5	2.2	2.2	5.7	2.8	2.6	5.8
NAVAJO	27.5	20	18.4	13.2	5.4	16.5	20	30.2	18.1	10.3	20.5	21.5
PIMA	14.2	12.6	17.5	17.2	16.3	13.9	12	14	8.7	14.2	18	15.9
PINAL	6.6	3.2	8.8	7.9	4.7	9.5	5.4	2.6	3.6	4.9	11.1	5.6
SANTA CRUZ	1.9	1.8	1.7	9.9		1.5	12.2	3	10.1	9.8	5.2	18.2
YAVAPAI	4.3	5	6.4	9.2	8.7	4.1	7.3	8.4	5	7.9	11.9	14.9
YUMA	2.6	4.5	3.1	5.9	2.3	2.3	3.3	2.7	0.5		1.2	2.5
STATE	12.6	13.3	13.5	11.6	9.4	10.2	10	10	7.6	10.1	12.1	12.4

Disease: *CHOLERA*

County	***199***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
MARICOPA								0		0.1		
STATE								0		0		

Disease: *COCCI*

County	***199***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
APACHE			1.5				2.8	2.7	2.8	1.4	1.4	1.4
COCHISE		0.8	3		3.5	2.7	1.4	2	2	2	4.2	3.4
COCONINO	0.9				2.5	1.6	0.8	0.8	1.6	4.7	6.9	7.7
GILA		6.1	5.9		7.4	9	8.7	15.3	13.4	15	7.8	25.3
GRAHAM			2.9		5.4	10.5	10.2	5	12.2	14.4	9	14.9
GREENLEE				7.7	15.2	7.4	7.3				11.7	11.7
LA PAZ	11.8	23.6	17.8	17.7	5.8		27.7	27.4	54.4	27.1	5.1	35.5
MARICOPA	5	7.6	10.7	12.9	11.6	13.3	12.7	18.6	32.9	34.6	45.1	55.8

MOHAVE	2	0.9	7.2	6.8	8.9	15.5	9.7	10.3	17.2	13.3	15.5	15.5
NAVAJO	1.2	1.2	1.1	3.3	1.1	3.1	2	4.9	1.9	6.5	7.2	5.1
PIMA	6.6	7.2	11	20.3	17.9	14	16.3	16.3	26.5	32.8	41.4	48.4
PINAL	4.6	10.4	19.5	18.2	20.5	23	30.3	30	40.8	42.1	57.9	46.7
SANTA CRUZ		1.8	3.5			1.5	1.5		1.4	1.4	7.8	5.2
YAVAPAI		3.3	4	7.6	3.6	1.4	3.3	2.6	5	4.8	10.7	4.8
YUMA			0.6	1.8	2.3	1.1	1.7	3.2	3.6	3	5.6	6.9
STATE	4.4	6.4	9.4	12.3	11.6	12	12.2	15.7	27.3	30.9	37.5	44.9

Disease: *COLORADO TICK FEVER*

County	***199***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
MARICOPA							0					
STATE							0					

Disease: *CRYPTOSPORIDIOSIS*

County	***199***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
APACHE					1.5							
GRAHAM												3
MARICOPA					0.1	0.6	0.2	0.6	0.5	0.3	0.2	0.2
MOHAVE												0.6
PIMA					0.1	0.3	0.1	0.1	0.1	0.4	0.2	0.1
PINAL						0.6						
YAVAPAI					0.7		0.7		0.6		0.6	0.6
YUMA	0.7							0.5				
STATE	0				0.1	0.4	0.1	0.4	0.3	0.3	0.2	0.2

Disease: *DENGUE*

County	***199***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
COCONINO											0.9	
MARICOPA										0.1	0	0
PIMA									0.1		0.1	
SANTA CRUZ					1.6							
STATE					0				0	0	0.1	0

Disease: *E. COLI O157:H7*

County	***199***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
APACHE										1.4		
COCHISE	1.3											
COCONINO										1.6	2.6	
MARICOPA				0						0.6	1.2	0.7
MOHAVE										0.7	2.6	1.3

PIMA										0.4	0.9	0.6
PINAL										0.5	1.1	
YAVAPAI										1.8	1.2	1.2
YUMA										1		0.6
STATE				0				0.7	0.8	0.6	1.1	0.6

Disease: *EHRLICHIOSIS*

County	***199***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
PIMA							0.1				0.1	
STATE							0				0	

Disease: *ENCEPHALITIS*

County	***199***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
COCONINO											0.9	0.9
MARICOPA											0.1	0.3
MOHAVE												
NAVAJO												1
PIMA												0.2
SANTA CRUZ												2.6
YAVAPAI												0.6
YUMA												0.6
STATE				0.2	0	0.1	0	0.1	0	0.1	0.1	0.3

Disease: *GIARDIASIS*

County	***199***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
APACHE	4.7				1.5	5.7		4.1	6.9	2.8	2.9	1.4
COCHISE	3.2	2.3			1.4	1.4		0.7	0.7	2	3.4	1.7
COCONINO	6.5	6.4	0.9		4.2	2.4	4.8	3.9	0.8	1.6	3.4	0.9
GILA						1.8	3.5	1.7				1.9
GRAHAM	3	5.8	2.9					2.5	4.9	2.4		
GREENLEE				46.4								
LA PAZ			23.7			11.4		11	5.4		10.1	
MARICOPA	20.9	17.9	15.7	10.7	9.1	8.2	7.7	6.5	4.6	4.9	8.2	6.8
MOHAVE	33.9	4.7	16.2	7.7	0.8	3.9	3	2.9	7.2	5.6	6.5	8.4
NAVAJO	4.8		1.1	2.2	1.1	2.1	3	3.9	1	1.9	1	
PIMA	4.1	4.6	3.7	4.3	5.3	4.2	4	5.7	5	5.7	3.4	2.7
PINAL	6.6	7.1	6.3	3.6	2.9	0.6	3.8	5.8	2.5	1	1.1	2.2
SANTA CRUZ	1.9					1.5			21.7	7	7.8	5.2
YAVAPAI	4.3	15.1	6.4	6.1	2.9	4.1	5.3	5.8	3.1	0.6	0.6	5.4

YUMA	1.3	1.3	2.5	2.9	0.6	1.7	1.7	1.1		0.5	1.9	1.2
STATE	14.3	12.1	10.6	7.6	6.6	6	5.8	5.6	4.4	4.4	6.1	5.2

Disease: *H. FLU (INVASIVE)*

County	***199***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
APACHE	6.2	3.1	1.5		4.4		1.4	2.7	6.9	6.9	10.1	10.1
COCHISE	4.7	2.3	1.5			1.4		0.7	0.7			1.7
COCONINO	2.8	1.8	10.6		2.5			0.8	1.6	0.8	2.6	2.6
GILA	2.1	2	2		3.7	1.8		1.7	1.7			1.9
GREENLEE					7.6							
LA PAZ	5.9			5.9							5.1	
MARICOPA	1.7	1.4	0.5	0.8	0.4	0.6	0.5	0.7	1.1	1.1	0.9	1.3
MOHAVE	2				0.8	0.8			1.4	0.7	0.6	3.2
NAVAJO	7.2	1.2	3.4	1.1	2.1	3.1	2	2.9	3.8	2.8	2.1	1
PIMA	5.3	2.4		0.6		0.3	0.1	0.3	1.2	1.4	0.9	2.1
PINAL	2.7	3.2	1.3	0.6	1.2		1.1		1	1	0.6	1.7
SANTA CRUZ	7.5	1.8										
YAVAPAI			2.4	1.5		0.7					0.6	0.6
YUMA	6.6	1.3	0.6			1.1				0.5	1.2	
STATE	2.9	1.6	0.8	0.6	0.5	0.6	0.4	0.6	1.1	1.1	1.1	1.6

Disease: *HANTA PULMONARY SYN*

County	***199***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
APACHE					4.4				2.8	1.4	2.9	
COCONINO									0.8	1.6	0.9	
MARICOPA					0							
NAVAJO					2.1						1	1
PIMA					0.1							
PINAL					0.6							
STATE					0.2				0.1	0.1	0.1	0

Disease: *HEPATITIS A*

County	***199***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
APACHE	454.2	110.5	50.4		790.2	324.1	82.1	8.2	16.6	2.8	1.4	
COCHISE	19.8	17.2	13.7		8.5	5.5	41.7	39.7	13.3	17.8	7.6	6.8
COCONINO	91.7	20.9	15		202	26	24	9.4	4.7	12.4	6	3.4
GILA		2	2		41	122.2	132.7	20.5	21.8	3.3	3.9	1.9
GRAHAM	30	2.9	5.7		70.1	13.1	33	5	4.9	12		
GREENLEE	8.7			54.1	7.6	7.4	14.5					
LA PAZ	5.9	88.5			17.4	11.4	11.1	11	5.4		5.1	10.1

MARICOPA	26.5	27	32.9	26	23	18.4	33.1	44.8	41.3	11	6.2	6.4
MOHAVE	12	4.7	18.8	52	60.1	54.2	15.7	100.4	18.7	2.1	6.5	4.5
NAVAJO	132.6	24.8	81.6	316.9	208.1	76.4	25.1	17.5	37.1	6.5	2.1	5.1
PIMA	15.2	15.7	8.2	17.9	25.8	10.3	20.1	42.5	22.5	17.2	10.2	8.8
PINAL	52.4	35	22	44.3	38.6	41.5	68.8	62.1	19.4	8.8	26.2	6.1
SANTA CRUZ	80.7	34.2	55.2	75.9	23.8	29.4	58.1	40.1	23.1	43.5	96.4	88.6
YAVAPAI	11.2	9.2	13.7	22.2	29.9	28.3	15.3	28.3	16.8	9.1	9.6	3.6
YUMA	20.5	27.7	22.1	70	12.2	40	41	15	17.7	7.6	35	37.5
STATE	34.3	24.7	26.3	31.1	43.9	26.1	33.1	42.1	32.3	12	9.1	8

Disease: *HEPATITIS B*

County	***199***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
APACHE	4.7	3.1	4.6		1.5		4.2		2.8			
COCHISE	4	3.9	3.8		2.1	1.4	7.5	2.7	3.3	3.3	3.4	
COCONINO	4.7	5.5	2.7		4.2	4.1	10.4	3.1	2.3	0.8	4.3	0.9
GILA	4.2		2				5.2	8.5	1.7	3.3	1.9	3.9
GRAHAM	9		5.7		2.7	2.6	15.2	5	2.4		3	
LA PAZ	5.9		11.8				5.5	5.5	10.9			
MARICOPA	11.3	3.6	3.8	1.3	1.6	2.1	3.4	3.2	3.4	2.8	4.9	3.8
MOHAVE	9	13.2	15.3	4.3	4.1	7	4.5	3.7	0.7	2.8	3.9	0.6
NAVAJO	4.8	1.2	1.1	4.4	1.1	2.1	3	3.9	2.9	2.8	4.1	2.1
PIMA	3.8	3.5	4	3.3	2.4	2	4.8	5.1	2.8	1.6	2.7	3.9
PINAL	16.6	7.8	6.3	2.4	2.3	2.2	10.3	4.7	3.6	2.4	5.6	2.2
SANTA CRUZ	7.5		5.2		1.6	3.1	1.5	3	1.4	1.4	2.6	
YAVAPAI	1.7	6.7	4.8	6.9	0.7	1.4	2	6.4	2.5	2.4	1.8	2.4
YUMA	10.6	5.8	3.7	5.3	4.7	6.9	7.8	1.6	2.6	1.5	1.9	1.2
STATE	8.9	4	4.2	2	2.1	2.4	4.4	3.6	3.1	2.5	4.2	3.3

Disease: *HEPATITIS C*

County	***199***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
APACHE							1.4	1.4				
COCHISE						0.7	0.7			0.7	1.7	
GILA						1.8		1.7		1.7		
GRAHAM					2.7	5.2	12.7		2.4	14.4	3	11.9
LA PAZ						11.4		5.5				
MARICOPA						1.2	1.5	0.2	0	0.1	0.1	0
MOHAVE					0.8		3	2.2		0.7		
NAVAJO							1	1.9		19.6	9.2	4.1
PIMA					1.1	0.3	0.3			0.5	0.1	

PINAL				0.6	1.7	2.2	2.1	6.1	6.8	2.2	
SANTA CRUZ				3.2		1.5					
YAVAPAI					0.7	1.3	1.9		0.6	0.6	
YUMA				3.5	1.7	1.1	1.1				
STATE				0.5	1.4	1.4	0.5	0.2	0.9	0.4	0.2

Disease: *HEPATITIS D*

County	***199***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
APACHE											1.4	
COCHISE									2	2		
GRAHAM										2.4		
MARICOPA									0.2	0.1	0.2	
NAVAJO									1	3.7	5.1	1
PIMA									0.2		0.2	
PINAL									4.1	3.9	1.1	1.7
YUMA									0.5	0.5	2.5	0.6
STATE									0.4	0.4	0.4	0.1

Disease: *HEPATITIS E*

County	***199***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
COCONINO									0.8			
STATE									0			

Disease: *HEPATITIS NON-A-B*

County	***199***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
APACHE		1.5										
COCHISE	0.8	1.6										
COCONINO		0.9	0.9									
GILA	2.1	2										
GRAHAM					2.7							
LA PAZ				5.9								
MARICOPA	1.5	0.2	0.1	0.2							0	
MOHAVE			0.9	0.9	0.8							
NAVAJO		2.4		1.1	1.1							
PIMA	0.5	0.2	1.7	0.2	0.2	0.7	0.2	0.1	0.1			
PINAL	4	1.9										
SANTA CRUZ				1.6								
YAVAPAI		1.7	7.2	1.5			0.7					
YUMA			1.2		2.9		0.6					
STATE	1.1	0.4	0.7	0.3	0.3	0.1	0.1	0	0		0	

Disease: *HEPATITIS UNSP*

County	*199*	*1991*	*1992*	*1993*	*1994*	*1995*	*1996*	*1997*	*1998*	*1999*	*2000*	*2001*
APACHE	9.3	1.5	3.1		1.5							
COCHISE	2.4	1.6										
COCONINO		1.8			2.5							
GILA		2										
GRAHAM	3											
MARICOPA	0.1	0.7	0.2	0.1	0.1							
MOHAVE			2.7	2.6								
NAVAJO	1.2	3.5	2.3		2.1							
PIMA	1.8	3	0.3	0.7	1.5	0.1						
PINAL	2.7	0.6	0.6	0.6	0.6							
SANTA CRUZ	3.8	1.8										
YAVAPAI	0.9	1.7										
YUMA		1.9	0.6		1.2	0.6						
STATE	0.8	1.3	0.3	0.3	0.6	0.1						

Disease: *LEGIONELLOSIS*

County	*199*	*1991*	*1992*	*1993*	*1994*	*1995*	*1996*	*1997*	*1998*	*1999*	*2000*	*2001*
COCHISE			2.3					0.7	0.7			
COCONINO			0.9				0.8				0.9	1.7
GILA						1.8						
GRAHAM						2.6						
LA PAZ	11.8	11.8	5.9									5.1
MARICOPA	0.2	0.9	0.7	0.3	0.1	0.2	0.4	0.3	0.3	0.1	0.3	0.4
MOHAVE			2.7						0.7			0.6
NAVAJO				1.1	1.1		1				1	1
PIMA	0.2	0.8	1	0.6	1	0.4	0.2	0.4	0.5	0.4	0.1	0.5
PINAL	0.7		1.9	1.2	0.6			0.5	0.5			
YAVAPAI	0.9		1.6				1.3		1.2	0.6		0.6
YUMA		0.6			1.2							
STATE	0.3	0.7	0.9	0.4	0.7	1.1	0.6	0.5	0.4	0.2	0.2	0.4

Disease: *LEPROSY*

County	*199*	*1991*	*1992*	*1993*	*1994*	*1995*	*1996*	*1997*	*1998*	*1999*	*2000*	*2001*
MARICOPA	0.1	0.1		0.1								
SANTA CRUZ				1.6								
YUMA												0.6
STATE	0	0		0.1								0

Disease: *LEPTOSPIROSIS*

County	*199*	*1991*	*1992*	*1993*	*1994*	*1995*	*1996*	*1997*	*1998*	*1999*	*2000*	*2001*
MARICOPA									0			
STATE									0			

Disease: *LISTERIOSIS*

County	*199*	*1991*	*1992*	*1993*	*1994*	*1995*	*1996*	*1997*	*1998*	*1999*	*2000*	*2001*
APACHE								1.4			2.9	
COCHISE								0.7		0.7	0.8	
COCONINO										3.1	1.7	
MARICOPA	0.3	0.2	0.3	0.1	0.2	0.3	0.2	0.2	0.3	0.3	0.2	0.3
MOHAVE								0.7	0.7	0.7	0.6	
NAVAJO											1	
PIMA		0.2	0.9	0.1		0.1	0.1	0.7	0.9	0.4	0.6	0.2
PINAL		0.6				1.1	1.6	0.5	0.5	0.5		
SANTA CRUZ				1.6		3.1	1.5	1.5			2.6	
YUMA						0.6						
STATE	0.2	0.2	0.4	0.1	0.1	0.3	0.2	0.3	0.4	0.3	0.4	0.2

Disease: *LYME DISEASE*

County	*199*	*1991*	*1992*	*1993*	*1994*	*1995*	*1996*	*1997*	*1998*	*1999*	*2000*	*2001*
COCONINO	0.8											
GILA								1.7				
MARICOPA		0						0.1	0	0	0	0.1
MOHAVE												0.6
NAVAJO										0.9		
PIMA						0.1				0.1		
PINAL												0.6
STATE		0				0		0.1	0	0.1	0	0.1

Disease: *MALARIA*

County	*199*	*1991*	*1992*	*1993*	*1994*	*1995*	*1996*	*1997*	*1998*	*1999*	*2000*	*2001*
APACHE												1.4
COCHISE											0.8	
COCONINO												0.9
GILA											1.9	
GRAHAM												
GREENLEE												
MARICOPA										0	0.2	0.5

PIMA											0.4	0.4
PINAL											0.6	
SANTA CRUZ												
YAVAPAI											0.6	
YUMA												
STATE	0.3	0.4	0.2	0	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.4

Disease: *MEASLES*

County	***199***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
APACHE		41.5										
COCHISE	28.5	0.8										
COCONINO		89.3	0.9									
GILA		16.3										
MARICOPA	5.1	1.3		0.1	0	0	0.1		0.2	0.1		0
MOHAVE	2	56.5					3.7					
NAVAJO		224			1.1							
PIMA	4.7	0.7			0.1							
PINAL	2.7	0.6			1.2	1.1			0.5			
SANTA CRUZ	7.5	1.8										
YAVAPAI		5.9	1.6		2.9	4.8		3.2				
YUMA	27	5.8										
STATE	5.8	9.8	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1		0

Disease: *MENINGITIS-ASEPTIC*

County	***199***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
APACHE	1.6		1.5					1.4	1.4			
COCHISE		2.3			0.7						1.7	1.7
COCONINO	2.8	0.9						18.8	15.6	0.8		
GILA	2.1	2	2		1.9			1.7	1.7		1.9	
GRAHAM							2.5		2.4			
LA PAZ			5.9									5.1
MARICOPA	4.4	2	3.1	4.6	1.9	2.1	1.7	2.7	5	3.6	4.8	6.3
MOHAVE	1			1.7		0.8	0.7	0.7				1.3
NAVAJO	1.2		1.1						3.8		1	
PIMA	2.3	1.7	1.7	6.3	1.7	1.1	0.6	1.3	2.4	2.2	0.5	0.4
PINAL	0.7	0.6	1.9	1.2	1.2	1.7	2.7	3.7	2	2.9	2.8	1.1
SANTA CRUZ				1.6						1.4		2.6
YAVAPAI	1.7	1.7	9.6	1.5	2.2	1.4		1.3	0.6	1.2	0.6	1.2
YUMA	1.3			7.1	0.6						0.6	

STATE	3.2	1.6	2.5	4.2	1.6	1.5	1.2	2.5	4	2.7	3.2	4

Disease: *MENINGOCOCCAL*

County	***199***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
APACHE								5.5		2.8		
COCHISE									0.7			0.8
COCONINO					0.8		0.8		1.6		1.7	
GILA						3.6	3.5					
GRAHAM			2.9			2.6		2.5				
LA PAZ								5.5				
MARICOPA	0.2	0.7	0.5	2.5	1.5	1.5	0.9	0.8	0.7	1	0.8	0.5
MOHAVE	1				1.6		0.7		0.7			
NAVAJO				2.2	2.1	1				0.9		1
PIMA		0.8	0.8	1.2	0.8	1.1	0.2	1	1.4	0.5	0.6	0.5
PINAL			0.6	0.6		0.6	0.5		0.5	0.5		
SANTA CRUZ				1.6	1.6							
YAVAPAI			0.8		0.7	0.7	0.7	0.6	1.9	1.2		
YUMA	0.7			1.2	0.6	0.6	1.1		0.5			
STATE	0.2	0.5	0.5	1.8	1.2	1.2	0.7	0.8	0.8	0.8	0.6	0.4

Disease: *MUMPS*

County	***199***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
COCHISE	2.4	7	3.8		0.7							
COCONINO		0.9	0.9		5			0.8				
GILA		2			1.9			1.7				
GREENLEE	8.7				7.6							
LA PAZ			5.9				5.5					
MARICOPA	2.7	2.7	1.6	0.4	0	0		0.2	0.1	0	0.1	0.1
MOHAVE	1	2.8	2.7	0.9								
NAVAJO	1.2	1.2										
PIMA	2	2.8	2.1	0.6	0.5	0.1					0.4	
PINAL	3.3		0.6					11.6				
SANTA CRUZ	1.9	1.8	12.1		1.6							
YAVAPAI	2.6	1.7	1.6		59.8							
YUMA	9.2	7.7	1.2	1.2	0.6			1.6	1			
STATE	2.6	2.7	1.7	0.4	3.2	0.2	0.2	1.1	0.1	0.1	0.1	0

Disease: *PERTUSSIS*

County	***199***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
APACHE							1.4		11.1			10.1

COCHISE			0.8		0.7	2.1	2.1				0.8	
COCONINO					3.3	3.3	2.4	1.6				
GILA						5.4	3.5	1.7				
GRAHAM		2.9	2.9									
MARICOPA	1.9	2.3	3.8	1.8	2.5	1.5	0.5	1	4	1	1.5	4.8
MOHAVE			0.9						13.7			14.2
NAVAJO			1.1	2.2				2.9				1
PIMA	1.3	1.7	1.6	1.3	1.2	2.6	1	0.6	6.4	4	4.7	23.6
PINAL			3.1		8.2	43.7			1.5		5	3.9
SANTA CRUZ						1.5		1.5				2.6
YAVAPAI	1.7	0.8	6.4	3.8	3.6	1.4	2	0.6	1.9	0.6	1.8	1.8
YUMA		1.9			11.1				1.6		3.1	0.6
STATE	1.4	1.7	2.9	1.5	4.1	7.4	0.8	1.2	12.3	2.7	2.7	7.6

Disease: *PLAGUE*

County	***199***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
APACHE			4.6								1.4	
COCONINO												
MARICOPA		0										
NAVAJO												
PIMA			0.1									
STATE		0	0.1		0.1	0	0	0	0		0	

Disease: *PSITTACOSIS*

County	***199***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
COCHISE	0.8											
MARICOPA	0		0.1									
STATE	0		0.1									

Disease: *Q FEVER*

County	***199***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
MARICOPA									0			
PIMA											0.1	
YUMA											0.6	
STATE									0		0	

Disease: *RELAPSING FEVER,TIC*

County	***199***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
APACHE			1.5				1.4					
COCONINO	2.8	0.9										1.7
MARICOPA	0		0									0

STATE	0.1	0	0				0					0.1

Disease: *REYE SYNDROME*

County	199	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
MARICOPA		0										0
PIMA				0.1								
STATE		0		0								0

Disease: *ROCKY MOUNTAIN SPOT*

County	199	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
COCONINO										0.8		
GREENLEE					7.6							
MOHAVE	1											
PINAL								0.5				
STATE	0				0			0		0		

Disease: *RUBELLA*

County	199	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
LA PAZ							5.5					
MARICOPA	0.6	0.1	0.1			0.1		0.2		0.3		
MOHAVE	9									0.7	0.6	
PIMA									0.1			
SANTA CRUZ				3.3								
YAVAPAI								0.6	0.6			
YUMA										0.5		
STATE	0.5	0	0	0		0.1	0	0.1	0	0.2	0	

Disease: *RUBELLA-CONGENITAL*

County	199	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
LA PAZ							5.5					
MARICOPA					0			0.1		0.1		
STATE					0			0		0 0		

Disease: *SAL PARATYPHI A*

County	199	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
GILA											1.9	
MARICOPA								0			0.1	0
PIMA										0.1		0.1
STATE								0		0	0.1	0

Disease: *SAL PARATYPHI B*

County	199	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
APACHE										1.4		

COCHISE											0.8	
COCONINO									0.8			
MARICOPA									0.1	0.1	0.1	
NAVAJO									1			
PIMA									0.1		0.1	0.4
PINAL											1.1	
STATE									0.1	0.1	0.1	0.1

Disease: *SAL PARATYPHI C*

County	***199***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
MARICOPA										0		
STATE										0		

Disease: *SALMONELLOSIS*

County	***199***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
APACHE	55.8	33.8	16.8		16.1	21.2	15.3	42.6	55.4	45.8	20.2	30.2
COCHISE	3.2	8.6	3		2.8	5.5	4.1	8.7	12.6	11.2	11.9	7.6
COCONINO	12.2	9.1	9.7		7.5	13.8	13.6	13.3	17.2	21.7	24.1	28.4
GILA	8.3	18.4	5.9		3.7	12.6	21	20.5	13.4	23.3	17.5	11.7
GRAHAM	3				5.4	5.2	10.2	2.5	21.9	16.8	17.9	6
GREENLEE	8.7						7.3		7.2		11.7	11.7
LA PAZ		11.8	11.8			5.7		11	16.3	16.3	25.4	10.1
MARICOPA	12.7	14.7	12.3	9	8	9.6	10.6	14.7	12.5	13	13.2	12.2
MOHAVE	3	5.7	1.8	17	2.4	2.3	6	5.1	13.7	11.9	5.2	7.1
NAVAJO	26.3	15.3	18.4	23.1	6.4	18.6	6	19.5	26.6	18.7	10.3	12.3
PIMA	9	13.3	12.1	14.9	11.9	11.5	12.6	20.6	18.2	20.9	20.9	19.4
PINAL	29.9	25.9	15.1	26.1	12.9	10.7	17.9	16.8	15.3	20.1	23.9	20.6
SANTA CRUZ	5.6	14.4	12.1	13.2	4.8	9.3	18.4	16.3	15.9	11.2	15.6	15.6
YAVAPAI	6.9	10.9	15.3	17.6	7.3	6.9	7.3	10.9	11.2	16.3	14.9	11.3
YUMA	11.2	3.9	8.6	14.7	6.4	5.1	10	12.3	12	14.6	12.5	12.5
STATE	12.5	14	11.7	10.8	8.4	9.9	11	15.7	14.8	16.3	15.3	14.4

Disease: *SHIGELLOSIS*

County	***199***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
APACHE											40.3	30.2
COCHISE											3.4	7.6
COCONINO											16.3	13.8
GILA											9.7	11.7
GRAHAM											9	

GREENLEE												
LA PAZ												
MARICOPA											9.3	8.3
MOHAVE												1.9
NAVAJO											26.7	15.4
PIMA											16.2	11.4
PINAL											17.2	21.7
SANTA CRUZ											33.9	23.4
YAVAPAI											1.2	1.8
YUMA											7.5	9.4
STATE	33.7	24.1	17.4	14.4	13.6	30.8	19.6	20.7	11.4	10.3	11.1	10

Disease: *STREP GROUP A*

County	***199***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
APACHE					1.5	1.4	12.5	4.1	5.5	8.3	2.9	5.8
COCHISE					1.4	4.8	2.1	2.7	0.7	0.7	1.7	2.5
COCONINO					0.8	0.8	2.4	1.6	3.1	10.1	6.9	6
GILA						3.6	5.2	6.8	3.4	1.7	1.9	
GRAHAM						5.2		2.5		2.4		3
GREENLEE						7.4			7.2			
LA PAZ						11.4	5.5			16.3		5.1
MARICOPA					1.3	2.5	3.2	3.5	3.4	4.9	5.1	4.6
MOHAVE						0.8	1.5	0.7	3.6	7	1.3	3.9
NAVAJO					1.1	3.1	5	2.9	1.9	3.7	5.1	2.1
PIMA					4.1	2.4	4.8	3.7	4.1	3.8	3.9	4.1
PINAL					1.8	2.2	2.7	6.8	5.1	4.4	3.9	3.9
SANTA CRUZ						1.5		1.5			2.6	
YAVAPAI						1.4	2	1.9	1.9	3	2.4	0.6
YUMA						0.6			0.5	0.5	1.2	
STATE					1.7	2.4	3.5	3.4	3.3	4.5	4.4	4.1

Disease: *STREP GROUP B*

County	***199***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
APACHE										1.4		
COCHISE										0.70.8		
COCONINO										0.8	0.9	1.7
GILA								1.7		1.7		
MARICOPA								0.5	0.7	0.8	1.1	1.4
MOHAVE									0.7	0.7		0.6

NAVAJO									1			1
PIMA								0.5	0.7	0.7	0.5	
PINAL								0.5			0.6	
SANTA CRUZ											2.6	
YAVAPAI								0.6	0.6			
YUMA										0.6		
STATE							0.3	0.6	0.7	0.8	1.1	

Disease: *STREP PNEUMO INV*

County	***199***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
APACHE								23.3	52.6	20.8	23	18.7
COCHISE								6.7	9.3	5.9	14.4	11
COCONINO								7.1	19.5	22.5	23.2	25.8
GILA								3.4	3.4	5	11.7	13.6
GRAHAM									2.4	7.2	11.9	
LA PAZ										5.4	10.1	
MARICOPA								7.9	13.2	12.9	18.3	15.8
MOHAVE								1.5	18	14.7	8.4	23.9
NAVAJO								5.8	5.7	9.3	12.3	19.5
PIMA								3.7	11.4	15.6	20.7	16.8
PINAL								11.1	12.2	19.1	25.6	16.7
SANTA CRUZ								1.5		1.4	7.8	13
YAVAPAI								2.6	3.7	7.3	3.6	3.6
YUMA								0.5	1.6		1.2	0.6
STATE								8	12.4	12.9	18.2	15.5

Disease: *TETANUS (LOCK JAW)*

County	***199***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
MARICOPA									0			0
PIMA			0.1									
STATE			0						0			0

Disease: *TOXIC SHOCK SYNDROM*

County	***199***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
COCHISE			0.8									
MARICOPA	0.2	0	0.1	0				0	0.1			
PIMA	0.1	0.2	0.1	0.1	0.1		0.1	0.1				
PINAL	0.7	0.6										
YUMA		0.6	0.6									
STATE	0.2	0.1	0.1	0	0.1		0	0.1	0			

Disease: *TULAREMIA*

County	*199*	*1991*	*1992*	*1993*	*1994*	*1995*	*1996*	*1997*	*1998*	*1999*	*2000*	*2001*
APACHE												1.4
GILA		2										
MARICOPA		0						0				
NAVAJO		1.2								0.9	1	
YAVAPAI										0.6		
STATE		0.1						0		0	0	0

Disease: *TYPHOID FEVER*

County	*199*	*1991*	*1992*	*1993*	*1994*	*1995*	*1996*	*1997*	*1998*	*1999*	*2000*	*2001*
APACHE	1.4											
MARICOPA	0.4	0.2	0	0.1	0	0.1		0.1	0.1	0	0.1	0
MOHAVE		0.9										
NAVAJO											1	
PIMA				0.1	0.3	0.1				0.1		0.1
PINAL						0.6						
SANTA CRUZ		1.8										
YAVAPAI	0.9	0.8										
STATE	0.3	0.2	0	0.1	0.1	0.1		0	0.1	0	0.1	0

Disease: *VIBRIOSIS*

County	*199*	*1991*	*1992*	*1993*	*1994*	*1995*	*1996*	*1997*	*1998*	*1999*	*2000*	*2001*
COCHISE												
COCONINO												
MARICOPA												0.2
PIMA												0.1
YUMA												
STATE								0.1	0.1	0.1	0.1	0.1

Disease: *VRE*

County	*199*	*1991*	*1992*	*1993*	*1994*	*1995*	*1996*	*1997*	*1998*	*1999*	*2000*	*2001*
APACHE									16.6	19.4	4.3	7.2
COCHISE								2	6.6	5.9	7.6	7.6
COCONINO								4.7	8.6	19.4	16.3	12
GILA								8.5	15.1	24.9	9.7	9.7
GRAHAM									7.3	14.4	11.9	6
GREENLEE								7.2	7.2	7.4		11.7
LA PAZ								11	21.8	27.1	50.7	15.2
MARICOPA								5.5	15.2	19.7	25.2	19.8

MOHAVE								5.1	19.4	22.3	20.6	18.7
NAVAJO								6.8	9.5	11.2	8.2	11.3
PIMA								4	12.1	11.9	15.2	14.1
PINAL								17.9	24.5	17.6	26.2	17.8
SANTA CRUZ								1.5	2.9	4.2	2.6	
YAVAPAI								5.8	10.6	7.9	10.1	8.4
YUMA									1.6	1.5	5.6	7.5
STATE								6.4	13.9	16.9	22.8	16.9

Disease: *YERSINIOSIS*

County	***199***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
APACHE									2.8			
MARICOPA								0	0.1	0.1	0.1	0.1
NAVAJO										0.9		
PIMA									0.1		0.1	0.2
SANTA CRUZ											2.6	2.6
YAVAPAI										0.6		
STATE								0	0.1	0.1	0.1	0.1

Rates are based on 100,000 persons.
**** Rates given as "0" represent rates <0.1***

B. CASES BY COUNTY, 1990-2001

Reported Cases in Arizona by Year of Report, 2001

Disease: *AMEBIASIS*

County	***1990***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
APACHE	1											
COCHISE			2						1			
COCONINO	1	1	2			2						2
GILA		3					1					
GRAHAM						1	2					
GREENLEE								1				
LA PAZ											1	
MARICOPA	10	51	79	56	46	52	39	15	5	12	23	16
MOHAVE	1					1	1		1			
NAVAJO					1	1						
PIMA	8	2	6	7	8	5	6	3	5	5	7	3
PINAL			1	2	2	2	2					
SANTA CRUZ		4	4	2	1	15	15	9	7	4	5	3
YAVAPAI		5	1	3	2	2					1	3
YUMA		1										1
STATE	21	67	95	70	60	81	66	28	19	23	37	29

Disease: *BOTULISM*

County	***1990***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
APACHE							1					
MARICOPA						2		1				1
PIMA			1									
STATE			1			2	1	1				1

Disease: *BOTULISM,INFANT*

County	***1990***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
MARICOPA				1				2			1	1
MOHAVE												1
STATE				1				2			1	2

Disease: *BRUCELLOSIS*

County	***1990***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
COCONINO					1							
MARICOPA					8	4	1	2	1		2	4
PIMA				1	2			1				1
SANTA CRUZ					1							
YUMA				1	5	1						1

STATE				2	17	5	1	3	1		2	6

Disease: *CAMPYLOBACTERIOSIS*

County	***1990***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
APACHE	1		2		6	42	56	58	44	62	47	33
COCHISE	2	8	4		1		4		2	7	7	8
COCONINO	10	14	5		15	13	20	45	24	34	48	54
GILA	5	4	2		3	2	1	8	10	7	3	5
GRAHAM		1				1	2		1	4	3	4
GREENLEE						3					1	
LA PAZ		1			2				1	4	1	3
MARICOPA	373	423	411	345	257	293	277	243	211	275	292	319
MOHAVE	1	1	4	4	3	2	3	3	8	4	4	9
NAVAJO	23	17	16	12	5	16	20	31	19	11	20	21
PIMA	118	107	152	155	152	133	118	140	89	148	152	134
PINAL	10	5	14	13	8	17	10	5	7	10	20	10
SANTA CRUZ	1	1	1	6		1	8	2	7	7	2	7
YAVAPAI	5	6	8	12	12	6	11	13	8	13	20	25
YUMA	4	7	5	10	4	4	6	5	1		2	4
STATE	553	595	624	557	469	533	536	553	432	593	622	637

Disease: *CHOLERA*

County	***1990***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
MARICOPA								1		2		
STATE								1		2		

Disease: *COCCI*

County	***1990***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
APACHE			1				2	2	2	1	1	1
COCHISE		1	4		5	4	2	3	3	3	5	4
COCONINO	1				3	2	1	1	2	6	8	9
GILA		3	3		4	5	5	9	8	9	4	13
GRAHAM			1		2	4	4	2	5	6	3	5
GREENLEE				1	2	1	1				1	1
LA PAZ	2	4	3	3	1		5	5	10	5	1	7
MARICOPA	123	195	281	352	330	398	395	598	1099	1192	1385	1714
MOHAVE	2	1	8	8	11	20	13	14	24	19	24	24
NAVAJO	1	1	1	3	1	3	2	5	2	7	7	5
PIMA	55	61	96	182	167	134	160	163	270	342	349	408
PINAL	7	16	31	30	35	41	56	57	80	86	104	84
SANTA CRUZ		1	2			1	1		1	1	3	2
YAVAPAI		4	5	10	5	2	5	4	8	8	18	8

YUMA			1	3	4	2	3	6	7	6	9	11
STATE	191	287	437	592	580	626	655	869	1556	1813	1922	2302

Disease: *COLORADO TICK FEVER*

County	***1990***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
MARICOPA							1					
STATE							1					

Disease: *CRYPTOSPORIDIOSIS*

County	***1990***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
APACHE					1							
GRAHAM												1
MARICOPA					4	17	6	18	17	10	7	7
MOHAVE												1
PIMA					1	3	1	1	1	4	2	1
PINAL						1						
YAVAPAI					1		1		1		1	1
YUMA	1							1				
STATE	1				7	21	8	20	19	16	10	11

Disease: *DENGUE*

County	***1990***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
COCONINO											1	
MARICOPA										2	1	1
PIMA									1		1	
SANTA CRUZ					1							
STATE					1				1	2	3	1

Disease: *E. COLI O157:H7*

County	***1990***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
APACHE										1		
COCHISE										2		
COCONINO										2	3	
MARICOPA				1						19	37	20
MOHAVE										1	4	2
PIMA										4	8	5
PINAL										1	2	
YAVAPAI										3	2	2
YUMA										2		1
STATE				1				41	45	38	56	30

Disease: *EHRLICHIOSIS*

County	***1990***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
PIMA							1				1	

STATE							1				1	

Disease: *ENCEPHALITIS*

County	***1990***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
COCONINO											1	1
MARICOPA											2	10
MOHAVE												
NAVAJO												1
PIMA												2
SANTA CRUZ												1
YAVAPAI												1
YUMA												1
STATE				10	1	4	2	3	2	8	3	17

Disease: *GIARDIASIS*

County	***1990***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
APACHE	3				1	4		3	5	2	2	1
COCHISE	4	3			2	2		1	1	3	4	2
COCONINO	7	7	1		5	3	6	5	1	2	4	1
GILA						1	2	1				1
GRAHAM	1	2	1					1	2	1		
GREENLEE				6								
LA PAZ			4			2		2	1		2	
MARICOPA	519	457	412	291	261	244	239	208	152	168	253	208
MOHAVE	34	5	18	9	1	5	4	4	10	8	10	13
NAVAJO	4		1	2	1	2	3	4	1	2	1	
PIMA	34	39	32	39	49	40	39	57	51	59	29	23
PINAL	10	11	10	6	5	1	7	11	5	2	2	4
SANTA CRUZ	1					1			15	5	3	2
YAVAPAI	5	18	8	8	4	6	8	9	5	1	1	9
YUMA	2	2	4	5	1	3	3	2		1	3	2
STATE	624	544	491	366	332	314	311	308	249	256	314	267

Disease: *H. FLU (INVASIVE)*

County	***1990***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
APACHE	4	2	1		3		1	2	5	5	7	7
COCHISE	6	3	2			2		1	1			2
COCONINO	3	2	12		3			1	2	1	3	3
GILA	1	1	1		2	1		1	1			1
GREENLEE					1							
LA PAZ	1			1							1	
MARICOPA	42	36	14	21	11	18	14	24	36	37	28	40
MOHAVE	2				1	1			2	1	1	5

NAVAJO	6	1	3	1	2	3	2	3	4	3	2	1
PIMA	44	20		5		3	1	3	12	15	8	18
PINAL	4	5	2	1	2		2		2	2	1	3
SANTA CRUZ	4	1										
YAVAPAI			3	2		1					1	1
YUMA	10	2	1			2				1	2	
STATE	127	73	39	31	25	31	20	35	65	66	54	81

Disease: *HANTA PULMONARY SYN*

County	***1990***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
APACHE					3				2	1	2	
COCONINO									1	2	1	
MARICOPA					1							
NAVAJO					2						1	1
PIMA					1							
PINAL					1							
STATE					8				3	3	4	1

Disease: *HEPATITIS A*

County	***1990***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
APACHE	293	72	33		541	229	59	6	12	2	1	
COCHISE	25	22	18		12	8	61	59	20	27	9	8
COCONINO	98	23	17		243	32	30	12	6	16	7	4
GILA		1	1		22	68	76	12	13	2	2	1
GRAHAM	10	1	2		26	5	13	2	2	5		
GREENLEE	1			7	1	1	2					
LA PAZ	1	15			3	2	2	2	1		1	2
MARICOPA	657	689	865	709	658	552	1029	1443	1379	378	192	197
MOHAVE	12	5	21	61	74	70	21	137	26	3	10	7
NAVAJO	111	21	71	288	194	74	25	18	39	7	2	5
PIMA	127	133	71	161	240	99	197	425	229	179	86	74
PINAL	79	54	35	73	66	74	127	118	38	18	47	11
SANTA CRUZ	43	19	32	46	15	19	38	27	16	31	37	34
YAVAPAI	13	11	17	29	41	41	23	44	27	15	16	6
YUMA	31	43	36	119	21	70	74	28	34	15	56	60
STATE	1501	1109	1219	1493	2195	1361	1777	2333	1843	702	466	410

Disease: *HEPATITIS B*

County	***1990***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
APACHE	3	2	3		1		3		2			
COCHISE	5	5	5		3	2	11	4	5	5	4	
COCONINO	5	6	3		5	5	13	4	3	1	5	1

GILA	2		1				3	5	1	2	1	2
GRAHAM	3		2		1	1	6	2	1		1	
LA PAZ	1		2				1	1	2			
MARICOPA	279	91	99	35	46	63	107	102	113	98	152	117
MOHAVE	9	14	17	5	5	9	6	5	1	4	6	1
NAVAJO	4	1	1	4	1	2	3	4	3	3	4	2
PIMA	32	30	35	30	22	19	47	51	29	17	23	33
PINAL	25	12	10	4	4	4	19	9	7	5	10	4
SANTA CRUZ	4		3		1	2	1	2	1	1	1	
YAVAPAI	2	8	6	9	1	2	3	10	4	4	3	4
YUMA	16	9	6	9	8	12	14	3	5	3	3	2
STATE	390	178	193	96	105	125	237	202	178	144	213	167

Disease: *HEPATITIS C*

County	***1990***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
APACHE							1	1				
COCHISE						1	1			1	2	
GILA						1		1		1		
GRAHAM					1	2	5		1	6	1	4
LA PAZ						2		1				
MARICOPA						36	48	8	1	2	3	1
MOHAVE					1		4	3		1		
NAVAJO							1	2		21	9	4
PIMA					10	3	3			5	1	
PINAL					1	3	4	4	12	14	4	
SANTA CRUZ					2		1					
YAVAPAI						1	2	3		1	1	
YUMA					6	3	2	2				
STATE					23	71	74	25	14	52	21	9

Disease: *HEPATITIS D*

County	***1990***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
APACHE											1	
COCHISE									3	3		
GRAHAM										1		
MARICOPA									6	4	5	
NAVAJO									1	4	5	1
PIMA									2		2	
PINAL									8	8	2	3
YUMA									1	1	4	1
STATE									21	21	19	5

Disease: *HEPATITIS E*

County	*1990*	*1991*	*1992*	*1993*	*1994*	*1995*	*1996*	*1997*	*1998*	*1999*	*2000*	*2001*
COCONINO									1			
STATE									1			

Disease: *HEPATITIS NON-A-B*

County	*1990*	*1991*	*1992*	*1993*	*1994*	*1995*	*1996*	*1997*	*1998*	*1999*	*2000*	*2001*
APACHE		1										
COCHISE	1	2										
COCONINO		1	1									
GILA	1	1										
GRAHAM					1							
LA PAZ				1								
MARICOPA	37	6	3	5							1	
MOHAVE			1	1	1							
NAVAJO		2		1	1							
PIMA	4	2	15	2	2	7	2	1	1			
PINAL	6	3										
SANTA CRUZ				1								
YAVAPAI		2	9	2			1					
YUMA			2		5		1					
STATE	49	20	31	13	14	7	4	1	1		1	

Disease: *HEPATITIS UNSP*

County	*1990*	*1991*	*1992*	*1993*	*1994*	*1995*	*1996*	*1997*	*1998*	*1999*	*2000*	*2001*
APACHE	6	1	2		1							
COCHISE	3	2										
COCONINO		2			3							
GILA		1										
GRAHAM	1											
MARICOPA	3	19	4	4	3							
MOHAVE			3	3								
NAVAJO	1	3	2		2							
PIMA	15	25	3	6	14	1						
PINAL	4	1	1	1	1							
SANTA CRUZ	2	1										
YAVAPAI	1	2										
YUMA		3	1		2	1						
STATE	36	60	16	14	29	3						

Disease: *LEGIONELLOSIS*

County	*1990*	*1991*	*1992*	*1993*	*1994*	*1995*	*1996*	*1997*	*1998*	*1999*	*2000*	*2001*

COCHISE			3					1	1			
COCONINO			1				1				1	2
GILA						1						
GRAHAM						1						
LA PAZ	2	2	1									1
MARICOPA	6	22	19	9	4	7	12	11	10	4	8	11
MOHAVE			3						1			1
NAVAJO				1	1		1				1	1
PIMA	2	7	9	5	9	4	2	4	5	4	1	4
PINAL	1		3	2	1			1	1			
YAVAPAI	1		2				2		2	1		1
YUMA		1			2							
STATE	12	32	41	17	37	56	33	27	20	9	11	21

Disease: *LEPROSY*

County	***1990***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
MARICOPA	2	2		2								
SANTA CRUZ				1								
YUMA												1
STATE	2	2		3								1

Disease: *LEPTOSPIROSIS*

County	***1990***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
MARICOPA									1			
STATE									1			

Disease: *LISTERIOSIS*

County	***1990***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
APACHE								1			2	
COCHISE								1		1	1	
COCONINO										4	2	
MARICOPA	8	6	9	2	7	9	7	5	11	9	7	8
MOHAVE								1	1	1	1	
NAVAJO											1	
PIMA		2	8	1		1	1	7	9	4	5	2
PINAL		1				2	3	1	1	1		
SANTA CRUZ				1		2	1	1			1	
YUMA						1						
STATE	8	9	17	4	7	15	12	17	22	20	20	10

Disease: *LYME DISEASE*

County	*1990*	*1991*	*1992*	*1993*	*1994*	*1995*	*1996*	*1997*	*1998*	*1999*	*2000*	*2001*
COCONINO								1				
GILA								1				
MARICOPA		1						2	1	1	1	2
MOHAVE												1
NAVAJO										1		
PIMA						1				1		
PINAL												1
STATE		1				1		4	2	3	1	4

Disease: *MALARIA*

County	*1990*	*1991*	*1992*	*1993*	*1994*	*1995*	*1996*	*1997*	*1998*	*1999*	*2000*	*2001*
APACHE												1
COCHISE											1	
COCONINO												1
GILA											1	
GRAHAM												
GREENLEE												
MARICOPA										1	5	14
PIMA											3	3
PINAL											1	
SANTA CRUZ												
YAVAPAI											1	
YUMA												
STATE	11	16	10	1	10	15	9	12	12	11	11	19

Disease: *MEASLES*

County	*1990*	*1991*	*1992*	*1993*	*1994*	*1995*	*1996*	*1997*	*1998*	*1999*	*2000*	*2001*
APACHE		27										
COCHISE	36	1										
COCONINO		98	1									
GILA		8										
MARICOPA	126	33		3	1	1	3		7	4		1
MOHAVE	2	60					5					
NAVAJO		190			1							
PIMA	39	6			1							
PINAL	4	1			2	2			1			
SANTA CRUZ	4	1										
YAVAPAI		7	2		4	7		5				
YUMA	41	9										

STATE	252	441	3	3	10	10	9	7	8	4		1

Disease: *MENINGITIS-ASEPTIC*

County	***1990***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
APACHE	1		1					1	1			
COCHISE		3			1						2	2
COCONINO	3	1						24	20	1		
GILA	1	1	1		1			1	1		1	
GRAHAM							1		1			
LA PAZ			1									1
MARICOPA	108	51	82	126	55	62	52	86	166	124	148	193
MOHAVE	1			2		1	1	1				2
NAVAJO	1		1						4		1	
PIMA	19	14	15	57	16	11	6	13	24	23	4	3
PINAL	1	1	3	2	2	3	5	7	4	6	5	2
SANTA CRUZ				1						1		1
YAVAPAI	2	2	12	2	3	2		2	1	2	1	2
YUMA	2			12	1						1	
STATE	139	73	116	202	79	80	65	140	228	157	163	206

Disease: *MENINGOCOCCAL*

County	***1990***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
APACHE								4		2		
COCHISE									1			1
COCONINO					1		1		2		2	
GILA						2	2					
GRAHAM			1			1		1				
LA PAZ								1				
MARICOPA	6	17	13	69	43	45	27	27	24	33	26	15
MOHAVE	1				2		1		1			
NAVAJO				2	2	1				1		1
PIMA		7	7	11	7	11	2	10	14	5	5	4
PINAL			1	1		1	1		1	1		
SANTA CRUZ				1	1							
YAVAPAI			1		1	1	1	1	3	2		
YUMA	1			2	1	1	2		1			
STATE	8	24	23	86	58	63	39	45	48	46	33	21

Disease: *MUMPS*

County	***1990***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
COCHISE	3	9	5		1							
COCONINO		1	1		6			1				

GILA		1			1			1				
GREENLEE	1				1							
LA PAZ			1				1					
MARICOPA	67	69	41	11	1	1		5	4	1	3	2
MOHAVE	1	3	3	1								
NAVAJO	1	1										
PIMA	17	24	18	5	5	1					3	
PINAL	5		1					22				
SANTA CRUZ	1	1	7		1							
YAVAPAI	3	2	2		82							
YUMA	14	12	2	2	1			3	2			
STATE	113	123	81	19	160	10	13	59	7	8	6	2

Disease: *PERTUSSIS*

County	***1990***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
APACHE							1		8			7
COCHISE			1		1	3	3				1	
COCONINO					4	4	3	2				
GILA						3	2	1				
GRAHAM		1	1									
MARICOPA	47	58	101	48	71	44	15	31	135	35	47	147
MOHAVE			1						19			22
NAVAJO			1	2				3				1
PIMA	11	14	14	12	11	25	10	6	65	42	40	199
PINAL			5		14	78			3		9	7
SANTA CRUZ						1		1				1
YAVAPAI	2	1	8	5	5	2	3	1	3	1	3	3
YUMA		3			19				3		5	1
STATE	60	77	132	70	203	387	41	68	699	156	140	388

Disease: *PLAGUE*

County	***1990***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
APACHE			3								1	
COCONINO												
MARICOPA		1										
NAVAJO												
PIMA			1									
STATE		1	4		5	1	2	1	1		1	

Disease: *PSITTACOSIS*

County	***1990***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
COCHISE	1											

MARICOPA	1		3									
STATE	2		3									

Disease: *Q FEVER*

County	***1990***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
MARICOPA									1			
PIMA											1	
YUMA											1	
STATE									1		2	

Disease: *RELAPSING FEVER,TIC*

County	***1990***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
APACHE			1				1					
COCONINO	3	1										2
MARICOPA	1		1									1
STATE	4	1	2				1					3

Disease: *REYE SYNDROME*

County	***1990***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
MARICOPA		1										1
PIMA				1								
STATE		1		1								1

Disease: *ROCKY MOUNTAIN SPOT*

County	***1990***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
COCONINO										1		
GREENLEE					1							
MOHAVE	1											
PINAL								1				
STATE	1				1			1		1		

Disease: *RUBELLA*

County	***1990***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
LA PAZ							1					
MARICOPA	14	2	2			3		6		11		
MOHAVE	9									1	1	
PIMA									1			
SANTA CRUZ				2								
YAVAPAI								1	1			
YUMA										1		
STATE	23	2	2	2		3	1	7	2	13	1	

Disease: *RUBELLA-CONGENITAL*

County	***1990***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
LA PAZ							1					

MARICOPA					1			2		2		
STATE					1		1	2		2		

Disease: *SAL PARATYPHI A*

County	***1990***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
GILA											1	
MARICOPA								1			3	1
PIMA										1		1
STATE								1		1	4	2

Disease: *SAL PARATYPHI B*

County	***1990***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
APACHE										1		
COCHISE											1	
COCONINO									1			
MARICOPA									2	4	3	
NAVAJO									1			
PIMA									1		1	3
PINAL											2	
STATE									5	6	7	3

Disease: *SAL PARATYPHI C*

County	***1990***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
MARICOPA										1		
STATE										1		

Disease: *SALMONELLOSIS*

County	***1990***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
APACHE	36	22	11		11	15	11	31	40	33	14	21
COCHISE	4	11	4		4	8	6	13	19	17	14	9
COCONINO	13	10	11		9	17	17	17	22	28	28	33
GILA	4	9	3		2	7	12	12	8	14	9	6
GRAHAM	1				2	2	4	1	9	7	6	2
GREENLEE	1						1		1		1	1
LA PAZ		2	2			1		2	3	3	5	2
MARICOPA	315	376	324	245	227	287	329	475	416	449	404	375
MOHAVE	3	6	2	20	3	3	8	7	19	17	8	11
NAVAJO	22	13	16	21	6	18	6	20	28	20	10	12
PIMA	75	113	105	134	111	110	124	206	186	218	176	164
PINAL	45	40	24	43	22	19	33	32	30	41	43	37
SANTA CRUZ	3	8	7	8	3	6	12	11	11	8	6	6
YAVAPAI	8	13	19	23	10	10	11	17	18	27	25	19
YUMA	17	6	14	25	11	9	18	23	23	29	20	20

STATE	547	629	542	519	421	513	592	868	846	956	786	738

Disease: *SHIGELLOSIS*

County	***1990***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
APACHE											28	21
COCHISE											4	9
COCONINO											19	16
GILA											5	6
GRAHAM											3	
GREENLEE												
LA PAZ												
MARICOPA											286	256
MOHAVE												3
NAVAJO											26	15
PIMA											137	96
PINAL											31	39
SANTA CRUZ											13	9
YAVAPAI											2	3
YUMA											12	15
STATE	1473	1083	805	693	679	1602	1056	1144	652	604	570	514

Disease: *STREP GROUP A*

County	***1990***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
APACHE					1	1	9	3	4	6	2	4
COCHISE					2	7	3	4	1	1	2	3
COCONINO					1	1	3	2	4	13	8	7
GILA						2	3	4	2	1	1	
GRAHAM						2		1		1		1
GREENLEE						1			1			
LA PAZ						2	1			3		1
MARICOPA					37	75	99	112	114	170	156	142
MOHAVE						1	2	1	5	10	2	6
NAVAJO					1	3	5	3	2	4	5	2
PIMA					38	23	47	37	42	40	33	35
PINAL					3	4	5	13	10	9	7	7
SANTA CRUZ						1		1			1	
YAVAPAI						2	3	3	3	5	4	1
YUMA						1			1	1	2	
STATE					84	126	188	189	189	265	224	209

Disease: *STREP GROUP B*

County	***1990***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***

APACHE										1		
COCHISE										1		1
COCONINO										1	1	2
GILA								1		1		
MARICOPA								15	23	29	35	44
MOHAVE									1	1		1
NAVAJO									1			1
PIMA									5	7	6	4
PINAL									1			1
SANTA CRUZ												1
YAVAPAI									1	1		
YUMA											1	
STATE								16	32	43	43	55

Disease: *STREP PNEUMO INV*

County	***1990***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
APACHE								17	38	15	16	13
COCHISE								10	14	9	17	13
COCONINO								9	25	29	27	30
GILA								2	2	3	6	7
GRAHAM									1	3	4	
LA PAZ										1	2	
MARICOPA								256	441	446	562	484
MOHAVE								2	25	21	13	37
NAVAJO								6	6	10	12	19
PIMA								37	116	162	175	142
PINAL								21	24	39	46	30
SANTA CRUZ								1		1	3	5
YAVAPAI								4	6	12	6	6
YUMA								1	3		2	1
STATE								441	709	758	936	794

Disease: *TETANUS (LOCK JAW)*

County	***1990***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
MARICOPA									1			1
PIMA			1									
STATE			1						1			1

Disease: *TOXIC SHOCK SYNDROM*

County	***1990***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
COCHISE			1									
MARICOPA	6	1	2	1				1	2			

PIMA	1	2	1	1	1		1	1				
PINAL	1	1										
YUMA		1	1									
STATE	8	5	5	2	3		1	3	2			

Disease: *TULAREMIA*

County	***1990***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
APACHE												1
GILA		1										
MARICOPA		1						1				
NAVAJO		1								1	1	
YAVAPAI										1		
STATE		3						1		2	1	1

Disease: *TYPHOID FEVER*

County	***1990***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
APACHE						1						
MARICOPA	10	4	1	2	1	2		2	5	1	3	1
MOHAVE		1										
NAVAJO											1	
PIMA				1	3	1				1		1
PINAL						1						
SANTA CRUZ		1										
YAVAPAI	1	1										
STATE	11	7	1	3	4	5		2	5	2	4	2

Disease: *VIBRIOSIS*

County	***1990***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
COCHISE												
COCONINO												
MARICOPA												5
PIMA												1
YUMA												
STATE								6	8	5	3	7

Disease: *VRE*

County	***1990***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
APACHE									12	14	3	5
COCHISE								3	10	9	9	9
COCONINO								6	11	25	19	14
GILA								5	9	15	5	5
GRAHAM									3	6	4	2
GREENLEE								1	1	1		1

LA PAZ								2	4	5	10	3
MARICOPA								176	507	679	775	609
MOHAVE								7	27	32	32	29
NAVAJO								7	10	12	8	11
PIMA								40	123	124	128	119
PINAL								34	48	36	47	32
SANTA CRUZ								1	2	3	1	
YAVAPAI								9	17	13	17	14
YUMA									3	3	9	12
STATE								352	792	989	1169	867

Disease: *YERSINIOSIS*

County	***1990***	***1991***	***1992***	***1993***	***1994***	***1995***	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
APACHE									2			
MARICOPA								1	4	4	2	2
NAVAJO										1		
PIMA									1		1	2
SANTA CRUZ											1	1
YAVAPAI										1		
STATE								1	7	6	4	5